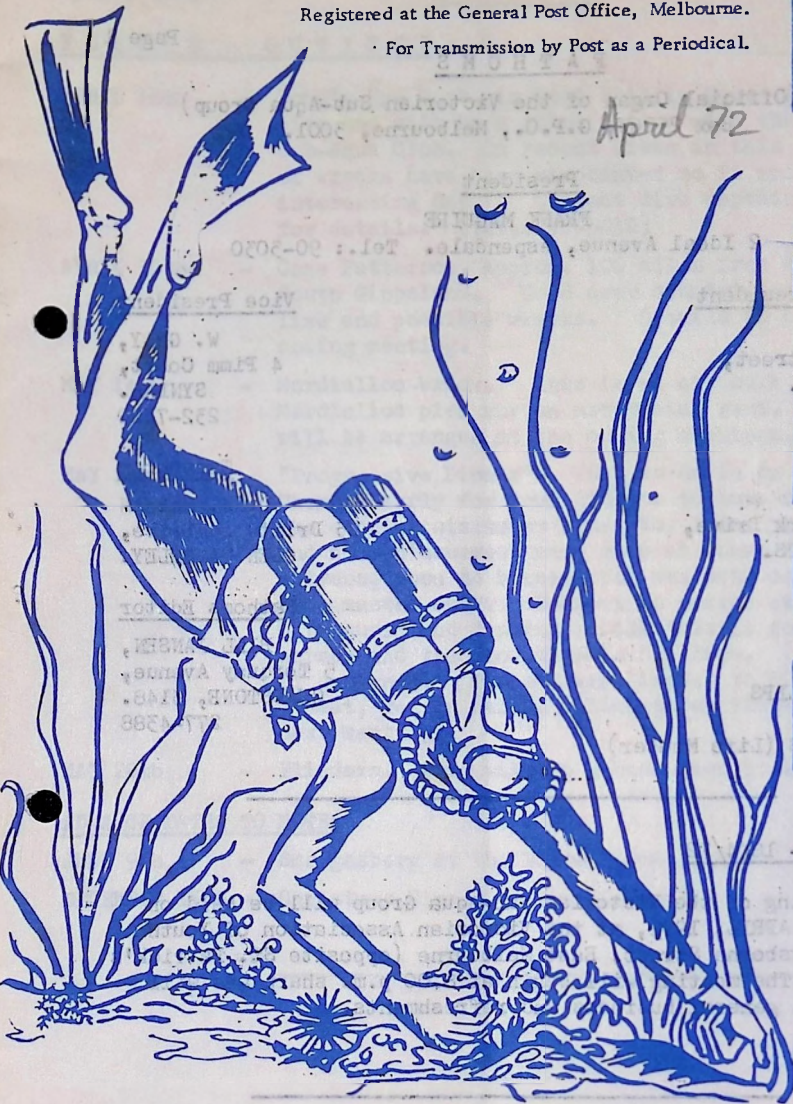


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April 72

FATHOMS



VICTORIAN SUB-AQUA GROUP

FATHOMS

(Official Organ of the Victorian Sub-Aqua Group)
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CLUB MEETING - 18/4/72

The next meeting of the Victorian Sub-Aqua Group will be held on TUESDAY, 18th APRIL, 1972, at the Victorian Association of Youth Clubs Hall, Gisborne Street, East Melbourne (opposite St. Patrick's Cathedral). The meeting will begin at 8.00 p.m. sharp and will terminate with general business and refreshments.

FUTURE OUTINGS -

- APRIL 16th - Pope's Eye Rock, in Port Phillip Bay. This is a boat dive and will be a joint outing with the Frankston Sub-Aqua Club. On recent dives in this area a couple of wrecks have been pinpointed so it should be an interesting day. Contact dive captain Frank Maguire for details. (Tel.: 90-3030)
- APRIL 30th - Cape Patterson, approx. 100 miles from Melbourne, in South Gippsland. Good cray country, natural coastline and possible wrecks. Details to be discussed at coming meeting.
- MAY 14th - Mordialloc Wreck. This is an old hulk sunk off Mordialloc pier for an artificial reef. Boat details will be arranged at the coming meetings.
- MAY 20th - "Progressive Dinner". Want to be in on something new? Then be early for your tickets to save missing out. The evening starts at house No. 1 for pre-dinner wine and hors d'oeuvres; next step at house 2 is for entrees, then to house 3 for the main course, prepared by a master chef. Dessert is served at house 4, with music and dancing. All this is for \$2.00 per person and the good time is all free. (B.Y.O. beer, if desired). Tickets are limited to 50 so, to repeat, get in early. Tickets available at the next meeting.
- MAY 28th - Flinders. This will be a boat dive if weather permits.

ADVANCE DATES TO NOTE:

- JULY 9th - Smorgasborg at the White Horse Inn.
- DECEMBER 15th - Christmas Dinner at the 'Cuckoo'.
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DIVING PROFICIENCY -

Many words have been spoken and written, both here and abroad, on the subject of diver training. In the U.S. the subject is particularly confused, with many organizations adopting their own standards, different 'C' cards competing with one another and a range of instruction courses from impossibly hard to impossibly easy.

In Britain, divers have been more fortunate in the emergence of an overall controlling organization, the British Sub-Squa Club, or B.S.A.C. Most clubs throughout Britain (and some abroad) are regional divisions of the B.S.A.C. This body publishes a comprehensive dive instruction manual, keeps abreast of latest technical developments and trains all its members (as a condition of membership) to progressive stages of diving proficiency.

The situation in Australia has 'til now been confused and disorganised. Some clubs require a medical certificate to join, some operate diving schools as a source of revenue, mostly to a minimum necessary standard. By good fortune there have not been too many serious accidents but every so often a fatality occurs, and most of these can be put down either to ignorance of the rules or careless disregard of them. With every such tragedy more restrictions are placed on diving and the public image of the sport suffers.

In recent years two organizations have emerged which hold promise of improving the situation. One is the Underwater Instructors Association, composed of principal instructors from the abovementioned schools and other commercial ventures. They have attempted to standardise instruction and generally improve methods. The other organization is the S.D.F., an affiliation of clubs which speaks for Scuba divers exclusively. While the S.D.F. has not yet come to grips with the problem of dive training, it promises to have sufficient authority among clubs and divers to manage the task successfully.

The Victorian Sub-Aqua Group is represented in both of these organizations. It has for some time been concerned with a higher standard of diving and over 10 years ago it established specific grades of diving proficiency, starting with C grade, corresponding to normal diving school standard; B grade involving a much higher degree of proficiency and A grade, roughly corresponding to master divers standard. Because of the difficulties of administration and high turnover of membership this system has not been fully

Diving Proficiency (Cont'd.)

in the past. However, the problem has continued to concern the club and in recent committee discussions it has been decided to re-assess and up-date our existing dive standards. A system of bringing all our club members through progressive stages of ability is needed, and standards should be brought into line with current knowledge. Also an established procedure should be adopted for control of divers on more hazardous club activities.

In achieving these ideals the V.S.A.G. would be setting an example for other clubs in Australia to follow and would be maintaining its position as "first and foremost".

BILL JANSEN.

DIVE REPORT - CAPE SCHANCK -

Our meeting place - Frankston Post Office, the time - 10 o'clock. Ten divers turned up and the dive was discussed. The dive scheduled was for Gunamatta Bay.

As our dive captain Pat Reynolds was unable to attend, Les Walkling was nominated in his place. He knew of a "very good spot" on that coast and it was agreed that all should proceed to the junction of Flinders Road and Cape Schanck.

Gunamatta Bay was out but at the time it didn't dawn on me. Usually when our annual Cape Schanck dive comes around I am very busy or crook, being somewhat wise about this spot. On arriving at the meeting place Frank suggested we dash up in one car and take a look at the water to determine whether it was suitable to dive. So a couple of us jumped in the car, gave the attendance at Cape Schanck his 20c and had a look at the water which was calm, blue and flat as a pancake. I got down on one knee and said to Frank, "let's tell them it's rough". He gives one of his grins and says, "It's Sunday, Bill, we have to tell the truth".

Les' land rover pulled in just as we got back. He took the lead heading towards Cape Schanck and when near the cape turned off on one of the tracks to the right. We soon arrived at the end of the track and began donning our gear. After unsuccessfully trying to get Pat to carry my lung down for me and locking far

Dive Report (Cont'd.)

down in the distance to the beach, I realized it was a day for snorkeling.

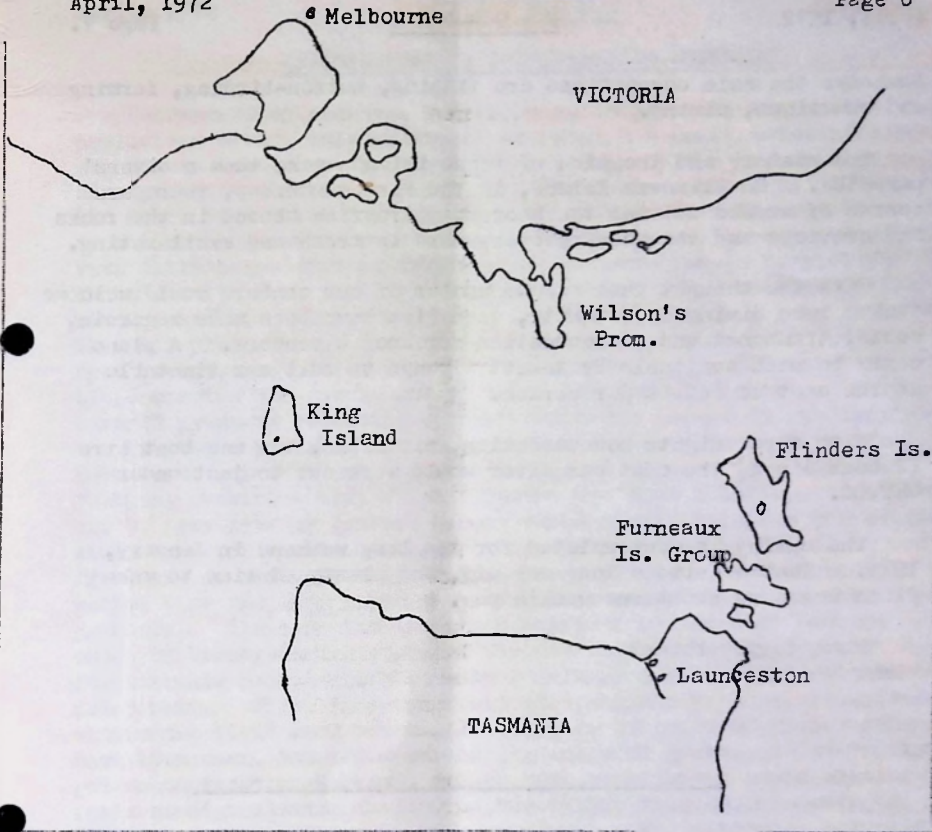
Knowing it was perfect cray country and having nothing with me to catch them, I hinted around until I found a piece of 8 gauge wire. On reaching the bottom, we all hit the water as quickly as possible. Whilst looking for my cray I had quite a fright at one stage when, as I looked into a hole, a 10 or 12 lb. fish swam out with a rush, right in front of my mask - I can still feel my heart pounding away. I came across a large flat hole with about 8 inches headroom, and there in the background about 10 to 12 ft. away was the largest cray I have seen - his feelers looked as large as my arms! I had no way to get at him. I'm wondering whether I would have shot him had I had a spear gun. I tried to entice him with abalone but to no avail. He is still there growing into old age. We then had some fun playing with some Port Jackson sharks.

After about 2 or 3 hours we were all contented with our dive and I was dreading that climb back up. Then Les said to the ladies and me that if we were to go along the beach until we came to a hut, we would find it a lot easier to climb up the cliff (mountain, I mean) from there. Naturally, I went with the ladies to help. Never again. We must have walked a mile along the beach, then the climb up $\frac{1}{2}$ mile, another walk about 2 miles, back to the car, and whilst walking and crawling my way back I kept hearing a voice saying, "Gee, these 4 crays are heavy". On arriving back I said to Pat, "I'll take those crays, dear, and place them in the ice box. We must look after them". On looking back on this dive from my arm chair, I must say it was one of the best. However, I'm not sure I can speak for those who had anything to carry coming back up.

BILL GRAY.

NEWS FLASH - Gordon Ryan has speared a 'Ling' 5 feet long and 2 lbs. in 30 ft. of water on a reef off Edithvale. Would this be a record?

BILL GRAY



Back in the days of sailing ships, Bass Strait was a constant danger with its rough seas and rugged coast. Many ships came to grief on Victorian and Tasmanian coastlines. The men who came to live in the windswept islands of Bass Strait were often fugitives or wreckers who enticed ships onto rocks for plunder. The method of courting was often to raid another settlement to carry off women.

These times have long since passed, but there still remains a breed of rugged individualists on these islands.

Nowadays the main occupations are fishing, mutton-birding, farming and sometimes, mining.

The history and location of these islands make them a divers' paradise. On Flinders Island, in the Furneaux Group, there are scores of wrecks dotting the shores. Crayfish abound in the rocks and crevices and the scenery everywhere is fresh and exhilarating.

With the thought that a good number of our members would welcome such a rare diving opportunity, enquiries have been made regarding costs, transport and accommodation for such a venture. A plane could be made available by Ansett Airways to suit our timetable at the cost of \$41.60 per person.

With three nights accommodation, air fills, bus and boat hire (2 boat dives) the cost per diver would work out to just under \$80.00.

The outing is contemplated for the long weekend in January, 1973. That's quite a long way off, and plenty of time to make plans and save about one week's pay.

What do you think?

MEDICAL SIDE OF DECOMPRESSION SICKNESS

Decompression sickness - the bends, is probably the most publicized diving malady; almost everyone has heard tales of deep sea divers bent over in pain and saved only by the presence of a decompression chamber. Bends can develop in a cautious SCUBA diver who never goes below fifty feet, with results as catastrophic as those from three hundred foot dives by hard hat divers; though the fatality rate falls below that of drowning or air embolism. Basically, bends results from rapid gas expansion which forms bubbles in the blood vessels. During the dive, the tissues take up gas, chiefly N₂ under pressure and store larger than normal quantities of it. Upon ascent, gas stores decrease towards surface values and the blood carries the excess gas to the lungs for elimination. During a rapid pressure reduction-decompression-the amount of gas leaving the tissues may exceed the amount which can be dissolved in blood. Bubbles of gas form and may obstruct blood flow. In a similar fashion, shaking a soft drink releases gas from solution. Bubbling can be prevented by gradual ascent which slowly releases the excess tissue gas and permits transportation of solution by blood. Treatment of decompression sickness in a pressure chamber reduces bubble size and then permits slow decompression to the surface pressure. The time between the completion of the dive and the onset of decompression sickness depends largely on the type of involvement; neurological disease generally develops faster than joint pain. Fifty to 85 per cent of the cases present themselves within the first hour after surfacing; by 12 hours 90-97 per cent have been seen, but cases have delayed for 24 hours. Aviators may get decompression sickness, called aero-embolism if cabin pressure fails at high altitudes above 17,000-25,000 ft., thus reducing ambient pressure to under surface values. The nitrogen, normally carried in the body leaves the tissues in response to the new, low N₂ partial pressures and bubbles can form. SCUBA diving before flying increases the risk of aero embolism by adding excess nitrogen to the body. Military and commercial aviators, hence, are not allowed to fly above 18,000 feet within 12 hours after diving below 30 feet.

A prickly, itching sensation called divers itch often presents itself, especially after chamber dives. Probably, the temperature rise during compression, explains the higher incidence of itch in dry dives. This itch generally disappears in 15 to 20 minutes with no after effects. Less frequently, an irregular, mottled skin rash develops accompanied by tenderness and a rise in the

skin's temperature; chest, back of shoulders, upper abdomen, forearms, and thighs are most frequently involved. Tenderness may persist after the rash has resolved. Although not dangerous by themselves, skin symptoms serve as a warning that decompression sickness may soon develop.

Fatigue beyond that expected from the amount of work done, may accompany deep dives. Following deep dry and wet chamber with minimal activity, diving classes often have a 100 per cent incidence of fatigue far out of proportion to the activity or to natural inertia. Onset of this fatigue, typically, comes a few hours after the dive. The most serious cases of decompression sickness are those affecting the nervous system. Both the central brain and spinal cord and peripheral cranial nerves and nerves coming off the spinal cord nervous systems are concerned. Nervous involvement develops more frequently among divers than caisson workers. This may be related to the depth of maximal exposure; unfortunately, major neurological involvement can result from a shallow dive. In general, the serious symptoms as stated, have a faster onset than bends' typical pain. The result of involvement can be weakness of muscles, or actual paralysis altered reflexes, and sensory abnormalities such as numbness or "pins and needles" sensations. Loss of bowel and bladder control is one of the most serious results. Brain involvement, though less common, can cause loss of consciousness, convulsions, nausea and vomiting, speech defects, personality changes and paralysis.

Peripheral nerve damage gives signs similar to spinal lesions, though more localized. Cranial nerve involvement may cause deafness or visual impairment. Nervous system damage leading to vertigo is known as the staggers since the patient has difficulty with walking. Respiratory symptoms, "chokes", though much less common, can be exceedingly serious. The onset comes later than with neurological sickness. Initially, difficulty with deep inspiration causes a substernal burning sensation. Deep breathing or smoking brings on coughing, while shallow inspiration does not hurt. Coughing becomes more frequent and breathing assumes a shallow, rapid pattern, inadequate for good ventilation. Oxygenation of the blood fails and cardiovascular collapse shock may be seen; unless prompt recompression is instituted, the outcome may be fatal. The burning sensation may spread in the upper respiratory tract and cause reddening of the mucosal surfaces. Nitrogen bubbles in the right ventricle block pulmonary circulation, thus causing "chokes", delay in onset results from the time necessary for the bubble mass to become large enough to block circulation (about 60% of the pulmonary arterial system must be blocked to cause pulmonary function impairment). People

susceptible to diver's mottled skin rash seem to have an increased incidence of "chokes".

Circulatory collapse (shock) occasionally develops from decompression sickness. It can result from "chokes", bubble blockage of vital blood vessels, or central nervous system damage. Transient drops in blood pressure not infrequently accompany serious cases of decompression sickness. The majority of the signs of decompression sickness resolve with recompression therapy, or with physical therapy following recompression. Chronic effects are limited to the nervous system and bones.

Chronic bone changes (aseptic necrosis) have been reported in tunnel workers, but not in U.S. Navy divers.* Presumably, these result from circulatory impairment. Unless it involves bone surfaces at joints, the damage causes no pain and shows up only on X-ray. Cases have been reported in caisson workers who had no history of decompression sickness. Possibly, bone changes occur after long exposure to minimally inadequate decompression.

*Recent studies reveal the probable existence of aseptic necrosis in Navy divers. One wonders what is happening to our abalone workers?

Submitted by BILL GRAY

DIVE REPORT -- LONG WEEKEND AT APOLLO BAY (March 11-12-13)

When we left Melbourne at 6.30 p.m. on Friday it looked like it was going to rain. We had a good run down to Apollo Bay, taking just under 3 hours. On arrival we met Phil Partridge, Ian Cockrell, Ron and Joy (visitors). They all offered their assistance in erecting our camper-trailer, but as we had put it up several times before, we had very little trouble. After standing around talking for some time we eventually turned in at about midnight.

About 8am Saturday we were all awake and eating or already had eaten. The 3 divers who were already there, decided not to dive on the Cassino until more members had turned up, so we drove along the beach until we came to two reefs about $1\frac{1}{2}$ miles west of Apollo Bay. We decided that this looked as good a place as any to dive in. We then went back to the caravan park and had an early lunch so that there would be plenty of time to dive. Arrived at the beach again about 2 pm and as we had a visitor whose qualifications we did not know, I decided that he should stay in about 4 feet of water about 10 yards off the beach, whilst Ian, Phil and I swam out to the reefs. (I had never dived with Phil or Ian before.)

On entering the surf in the usual manner when wearing flippers (i.e. backwards) I was extremely surprised to find after emerging from a 5 foot wave that I no longer possessed a face mask. I borrowed Glonys's mask and after a few minutes we were able to break through the surf, and headed slowly for the reefs, which were about 150 yards off the beach. When Phil, Ian and I were about 100 yards off shore we were swimming across a fairly strong current, but were making good headway. For some reason I turned around underwater and noticed a young person behind me who was supposed to be almost on the beach. I signalled him to surface and on doing so, found the current was a lot stronger than previously anticipated and we were being swept along fairly fast. The inexperienced diver panicked and removed his mask and mouth piece and started sinking and calling for help. As I was about 15 yards away, I told him to put his mask on and his mouthpiece back in, but he did not do this and continued calling for help. I told him to drop his weight belt. He tried this but it had become fouled up in his tank harness, so I swam like mad over to him and released his weight belt, but he did not seem to rise any higher out of the water and assured me he could not make it, so I took his twin 36 tanks off. He seemed alright then so I told him to swim like hell for the beach. At this time I lost sight of him as I rapidly sank with the extra weight of his tanks. Reaching the bottom I was confronted with two problems - one was that it was hard to ascertain the direction of the beach at all times, and the second was that I was making no headway. I decided to ditch my spear gun to give me one free hand and to lighten the load, but this proved absolutely useless, so the next step was to ditch my weight belt. After ditching it I rose to the surface and was able to make slow headway. About 30 yards from the beach I found that the swell and breakers were of extreme help to me. The lessons I learned from this near-fatal experience were - one, never leave anyone by themselves no matter how short a time, secondly, never let anyone borrow the equipment you are used to wearing. I had let Ian borrow my large flippers. I used my small flippers that I have not used for 3 years. This caused me to have at the most only half the power of my normal flippers. I had also let the person who got into trouble borrow my second wet suit which I normally wear under my suit, this reduced my buoyancy by one-third. I had also forgotten to remove weights from my belt, to make up for the loss of the second wet suit. Phil also had to ditch his spear-gun and weight belt.

Early Sunday morning Frank and Lyn Maguire arrived. We arranged a dive on Saturday's disaster area to try and recover some of the ditched gear. We inflated the dinghy and took it with us. Entering the water I lost my second face mask and was even more surprised than the time before. This time I had to borrow a mask from Ian, on the

April, 1972

FATHOMS

Page 12

condition that I replace it if I happened to lose it. We then tried to launch the dinghy against about a six foot swell with the result that Frank got a fairly bad rope burn around one hand but this did not stop him. We eventually got through the surf and started the search, but all we found after about two hours was my spear gun. The rest of the gear must have been covered with at least six inches of sand. We returned to the beach and surfed for a while, returned to the Recreation Reserve and had lunch. Bill and Jean Jansen and family had arrived by this time. We decided to go to the wreck of the Cassino after lunch. We arrived at the beach adjacent to the wreck and tried to launch the dinghy and while doing this, the surf scored my third face mask, or should I say Ian's. When this happened I decided to call off the dive. I then stripped off all my diving gear except togs so that I couldn't lose any more gear and went body surfing for the rest of the day. On Sunday evening, we met several members of the Hawthorn Scuba Club and were invited to dive with them from a boat, on the Cassino. Of course we snapped up the opportunity to get out to the wreck the easy way.

At 9.00 am on Monday morning we met the Hawthorn Scuba Club at the Apollo Bay boat harbour. The boat owner was not happy with the conditions over the wreck, so he and Ted, the president of the Hawthorn Club drove around by car to have a better look at the wreck site. It was decided that the water was too rough over the wreck and too dirty elsewhere to have a good dive, so we had a pier crawl.

At this stage I must add that the weather conditions were not very good. It was wet and overcast in the mornings and slowly clearing by lunch time. This meant that the diving gear was never dry for the morning dives.

ALAN CUTTS

NEWS FLASH !!

The V.S.A.G. has just acquired its compressor. Our president, Frank Maguire, sealed the deal today and we can now look forward to full enjoyment of unlimited air supplies in the future.

Sat 12/8/72. Finno.

April, 1972

FATHOMS

Page 13

DIVE REPORT -- EASTER WEEKEND AT RYE

With good weather and ideal sea conditions, Easter had arrived to find eight divers and their families camping at Flinders St. (Rye, not Melbourne). Another was camped nearby and there were also some intrepid ones who travelled back and forth each day.

The weekend's diving was mainly boat dives in the bay with the Hurricane being the favorite. There everyone managed to get their fill of scallops.

The wreck of the Coorangie was also dived, but due to tidal conditions we did not have enough bottom time to scour the area properly. At full flow the tide races through the rip and diving is only possible during slack water. A lot of diving is still left to be done on this wreck, and others in its vicinity in the future.

All in all, it was an excellent weekend that all enjoyed. More dives of this nature must be held in this area as it offers as much to the diver in scenery, fish, crays and wrecks as anywhere else in Victoria.

FRANK MAGUIRE

The Victorian Sub-Aqua Group extends it's sincerest thanks to Fred Tidman for the use of his property and facilities at Rye during the Easter weekend. Without his assistance the outing could not have been the success that it was.