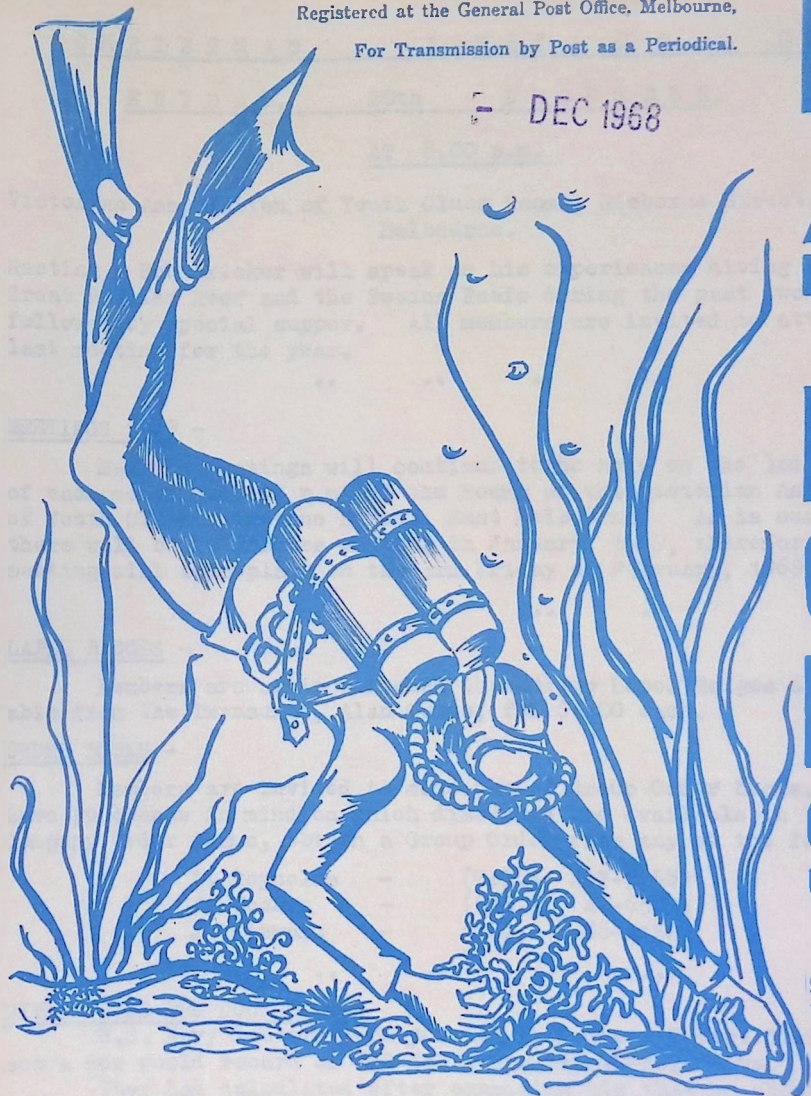


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FATHOMS



VICTORIAN SUB-AQUA GROUP

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C H R I S T M A S B R E A K - U P O NF R I D A Y, 20th D E C E M B E R,AT 8.00 p.m.

Victorian Association of Youth Clubs Rooms, Gisborne Street, East Melbourne.

Meeting - Rob Bricker will speak on his experiences diving around the Great Barrier Reef and the Swains Reefs during the past two years, followed by special supper. All members are invited to attend our last meeting for the year.

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MEETINGS 1969 -

Members meetings will continue to be held on the 3rd Friday of each month at 8.00 p.m. at the Rooms of the Victorian Association of Youth Clubs, Gisborne Street, East Melbourne. As is customary there will be no members meeting in January, 1969, therefore the first meeting will take place on the 3rd Friday of February, 1969.

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LAPEL BADGES -

Members are again reminded that Group Lapel Badges are available from the Treasurer, Alan Cutts, for \$1.00 each.

ORDER BOOKS -

Members are invited to make use of Group Order books. If you have purchases in mind on which discounts are available on Firm or Company Order Forms, obtain a Group Order from any of the following:-

P. Reynolds	-	(Tel.: 232-5358)
J. Noonan	-	(Tel.: 48-6549)
J. Stewart	-	(Tel.: 88-4452)

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DIVER FOOLS THE DOCTORS -

U.S. Navy doctors were puzzled when diver Robert Croft recently set a new world record of 240 ft. for a breath-hold dive.

They had calculated after examining him that he should be able to dive to a maximum of 197 ft., in experiments to test the behaviour of the lungs in deep dives.

They had clearly left some factor out of their calculations.

DIVER FOOLS THE DOCTORS (Continued)

They now think that the new factor is a mechanism whereby below a certain depth, the lungs resist collapse by extra blood being pumped into them and elsewhere in the chest cavity.

The extra blood boosts the pressure inside the chest walls and enables them to resist collapse at lower depths than would otherwise be possible.

When a person breathes out to the fullest extent possible, a quantity of air known as the residual volume is still left inside the lungs.

The lungs of a breathhold diver are squeezed in as he descends by the increasing pressure of water until the volume of air they contain is no greater than the ordinary residual volume.

Until now physiologists believed that the depth at which residual volume is reached marks the limit to which unprotected humans could descend.

The average person can reach depths of about 80 to 100 ft. Robert Croft has an unusually large lung-capacity and a small residual volume, on the basis of which it was calculated that he should be able to dive to 197 ft.

The blood volume inside Croft's chest was measured by electrodes which recorded changes in electrical resistance and hence in the balance between air and blood inside the chest.

During a 90 ft fresh-water dive in an escape training tank more than a litre ($1\frac{3}{4}$ pints) of blood was shifted into his lungs, and a slightly lesser amount during a 130 ft. dive in sea water.

BOAT TRIP -

Thanks to the efforts of our member, Tom Armstrong, at Blairgowrie, who obtained a suitable boat for us, the boat trip from Portsea to the Kelp Farm and then Popes Eye Rock was, from a turn up point of view, highly successful as well as being a pleasant day on the water for those attending.

Including visitors from the Specialty Press Diver's Club and Group members, 31 divers attended with families and friends. Four diving members due to safety of members on the boat, spent a pleasant day diving around the pier, not unprofitably. Those on the boat visited the Kelp Farm and although two members dived to ascertain conditions, on their report of a running tide and poor visibility, no general diving took place there. The boat moved to Popes Eye Rock where some hours of diving were enjoyed although again, visibility was not the best. The day was completed with barbecue teas on the lawns at Portsea.

DINNER DANCE - The Group's Annual Dinner Dance was held on Saturday, 14th December at Hunters Lodge - 35 members and friends turned up and from reports so far received, it was an outstanding success. The Editors understand that Peter M. was first up for dancing?

WITH REGRET - On behalf of all members of the Group, sincere sympathy is expressed to Mr. Rob Bricker and his family on the recent passing of his brother, Wayne, in a motor accident.

UNLAWFUL - One of our members visited Portarlington recently and got into friendly conversation with a local fisherman. He was informed that in the past month or so 3 boat's propellers have been removed from moored fishing boats while others are understood to have been taken from boats at Queenscliffe. This is believed the act of divers. If so, it is not only dishonest but extremely thoughtless. This sort of irresponsible activity reflects adversely on all divers and members should do all in their power to offset such destructive criticism by friendly co-operation at all times with fishermen. There is not the least thought that any of the Group's members would engage in such activities but it is up to us to ensure our image and that of all good divers is upheld by discouraging such actions wherever we find them or hear of them.

AIR DIVE EQUIPMENT - Your Editors have been informed that this Diving Centre in Prahran, more than favourably known to all of us, is now an accredited Air Filling and Cylinder Testing Station with the Australian Standards Association. This should add confidence to divers dealing with this Firm, that the standard of workmanship accepted in the past, is now confirmed by its acceptance by this Authority. As far as is known this Company is the first and only such accredited testing station in Victoria.

DADDY DIVERS - **HELP!** Triton magazine reports that Commander Philip White, Diving Superintendent of H.M.S. Vernon, writing in the R.N. Diving Magazine, states that a theory has been put forward that divers tend to have a predominance of daughters in their families, apparently sufficient is thought of the theory, based on certain available information, to justify the forwarding of a simple questionnaire to all serving divers to ascertain if, in fact, the theory can be substantiated.

OXYGEN-LESS AREA OF THE OCEAN - The discovery of an oxygen-depleted area of ocean floor on December 4, 1966, by Dr. Eugene LaFond of the Navy Electronics Laboratory has been reported. The desert condition was noted by Dr. LaFond while studying ocean bottom heat flow from DEEPSTAR 4000 about 10 miles north

of Avalon, Catalina. The appearance of the sea floor contrasted strikingly with all other areas observed in previous dives in that it was void of visible life and movement, according to Dr. LaFond. The sea floor at 1,200 meters normally contains brittle stars, sea cucumbers, gastropods, and a variety of fish, among which the sable fish is virtually always present. In San Pedro Basin, however, the bottom was covered with a thick layer of fine brown flocculated organic matter. There were not even the usual small grooves in the soft sediment which are the tracks of benthic animals as they crawl along the sea floor. It was somewhat analogous to a stagnant pool.

"The bottom appeared sterile of life. As we cruised just off the bottom, this feeling was intensified by the sight of a few dead animals. The dead organisms were in various stages of decomposition. The most abundant recognizable organisms were squid. One partly decomposed flat fish resembling a halibut was observed," according to Dr. LaFond.

Water samples taken 6 inches from the bottom were found to be almost totally devoid of oxygen. According to Dr. LaFond, the cause of this condition can be simply explained by the restricted circulation of water due to the shape of the basin.

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The Directors of the Group wish all members a Very Merry Christmas and a Happy and Prosperous New Year.

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P.S. Congratulations to the Victorian Speleological Association on its part in the rescue last weekend of a young man trapped underground in a cave in Tasmania. Two of Sub-Aqua's members, Peter Matthews and John Driscoll, members of the Association, participated in this rescue - congratulations John and Peter and all involved in this tremendously successful operation.