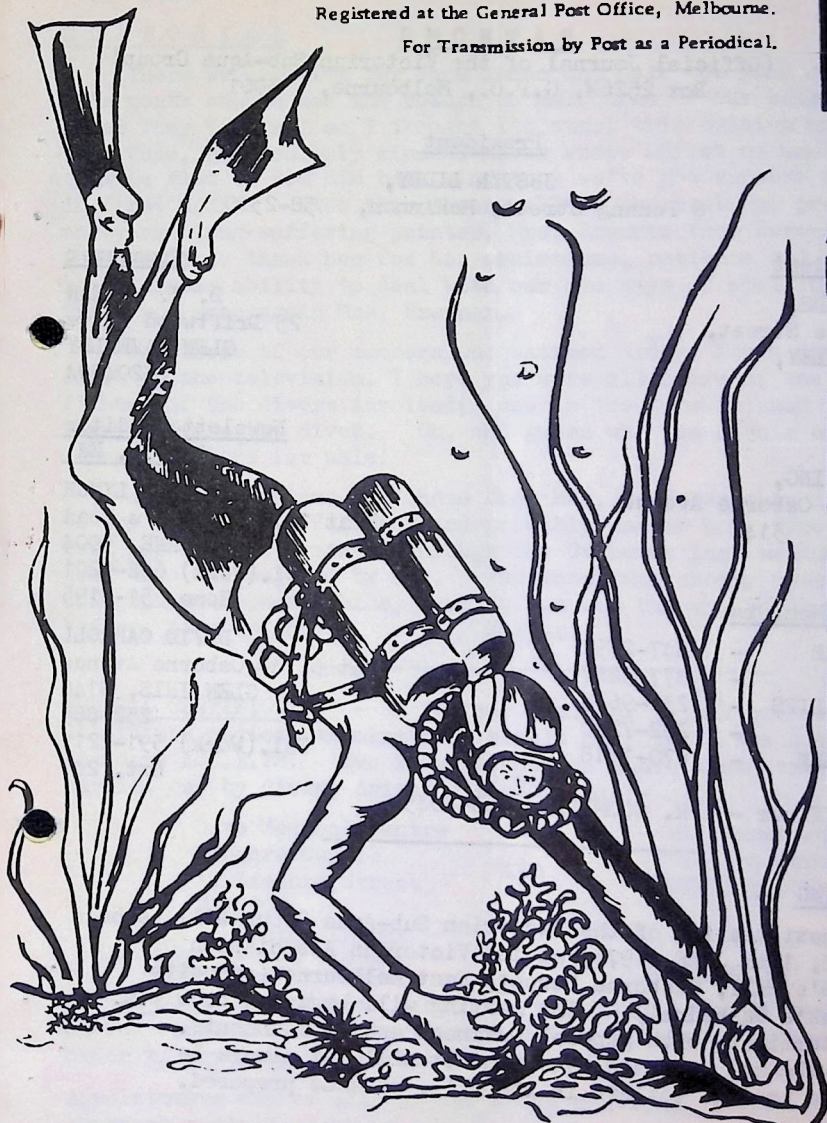


JUNE '75 3c.

Registered at the General Post Office, Melbourne.
For Transmission by Post as a Periodical.



FATHOMS



VICTORIAN SUB-AQUA GROUP

FATHOMS

(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, 17th JUNE, 1975, at the Victorian Association of Youth Club's Hall, Gisborne Street, East Melbourne (opposite St. Patrick's Cathedral). The meeting will begin at 8.00 p.m. and will terminate with general business and refreshments. Visitors welcome. Please note that it will not always be possible to use the toilets in the hall, so come prepared.

EDITORIAL

There we are with our June issue and half the year gone by. This month should see the return to Melbourne of our long lost wandering diver Tony Tipping, so I thought I'd start this edition with a welcome home Tone, particularly since I never wrote whilst he was away. I will be glad to see him back since now we've got someone else to throw in first again. Also this issue will be the last one prepared for us by our long-suffering printer, Mrs. Bremner from Essendon. I would like to thank her for her assistance, patience and her very considerable ability to deal with our odd ways of spelling sometimes. Thank you once again Mrs. Bremner.

For those of our members who watched Rodney Fox's date with a shark on the television, I hope you were all aware of the apparent fitness of the divers involved; now is the time to shed those extra pounds before the dives. Oh, and guess who has a pair of bright orange flippers for sale!

Just to continue our theme from May, remember this is the time to try for old olf faithful and probably nearer home type dives. We took our current trainees through the Cerberus last weekend and a good dive was enjoyed by all. The water was choppy outside but cool and calm once inside, bearing out our theory, so as we said before, it's up to you. Editor.

MEDICAL CERTIFICATES - A further reminder to all our members, that all future medical examinations should conform to the Australian Standard ASC.Z.18. Two known locations where these tests are carried out by diving oriented doctors are:-

Dive Medical Centre
Linacre Centre
12 Linacre Street
HAMILTON

AND

Williamstown Clinic
Electra Street
WILLIAMSTOWN

Doctor Knight
South of the Yarra

Doctor Silver
North of the Yarra

Please Note: All members listed in the April issue of Fathoms as not having current medical certificates must now have produced one in order to participate in club organised dives.

Appointments can be made at the above mentioned places for a thorough medical check up. Editor.

D I V E C A L E N D A R

- JUNE 14/15/16 - EDEN SAFARI. Dive Capt. Dave Carroll.
Stay at Council Caravan Park, Eden.
Contact D. Carroll - 252-883 (Priv.), or
391-2211, Ext. 247.
- JUNE 17 - GENERAL MEETING, 8 p.m. Youth Clubs Hall,
Gisborne Street.
- JUNE 20 - NAUGHTY NINETIES, 6.30 start.
Contact Dave Moore, Social Secretary, 547-2791
- JUNE 22 - KELP FARM. Meet Sorrento Boat Ramp, 11 a.m.
Dive. Capt. J. Goulding, 252-883.
Contact Saturday 21st between 6pm - 8pm
Sunday 22nd " 6am - 8.30am
- JULY 5/6 - SKI WEEKEND. Details from D. Moore, 547-2791
- JULY 20 - DIAMOND BAY. Meet Diamond Bay Road (off Old
Melbourne Road), 12 o'clock.
Dive Capt. J. Liddy, 582.310
Contact Saturday 6pm - 8pm, Sunday 6am - 9am.
- AUGUST 3 - OZONE WRECK DIVE. Meet at the Indented Head
Caravan Park, 10 a.m.
Dive Capt. D. Carroll, 252-883
-

FORTSEA HOLE DIVE - MAY 4th.

We arrived at the Sorrento Ramp at an early hour with the Bay looking a bit choppy. However, we headed out into it with everyone on board, divers, wives and girl-friends. Arriving off Portsea Pier, we located the hole, Dave with the echo sounder and Bazza with the old nose. We found, however, to our dismay that we had just missed slack water and that the tide was beginning to run out.

We managed to get down and once within the shelter of the steep sides of the hole it was a lot calmer. There were a few fish and visibility was about 12 to 15 feet. Conditions began to deteriorate so we came up and climbed aboard our respective craft. Peter Smith and Maurice Gagliardi decided on a small Bay detour first in a race to see who was first through the Heads.

PORTSEA HOLE DIVE (Cont'd.)

We then decided to visit Popes Eye, so we set off, stopping "en route" to collect Pete and Maurice. We arrived there with Dave making a graceful entrance over the rocks just for a change. Anchoring in the calm shallow centre we entered the water and made several sorties around the rocks, again some fish and this time we sighted Barracuda in the water above us, small ones I'm pleased to say.

We all returned to the shallow sandy saucer inside the rocks, where Rob tried to photograph a small ray which kept burying its head in the sand, must have been related to an ostrich, the ray not Rob. Then it was back into the boats and off to Mud Island, well, we nearly made it, got into the mud part of it anyway. Dave had a bit of trouble with the motor at this stage, and Bazza began rubbing his hands in anticipation of a good salvaging tow back to Sorrento. However, Dave managed to get it right all on his own and so we motored quietly back to Sorrento.

We got the boats out of the water and began to get ready to drive back to Melbourne nice and early for once. Then it was time for Dave's car to come out in sympathy with the boat. Despite all our efforts, and the dramatic appearance of Mr. Moore, senior, obviously in answer to one of Dave's prayers, we got nowhere. Jay Cody and the Bass Strait boat came, dived the hole in calm conditions and went, we remained. Finally, Rob plus the new car towed the recalcitrant car and we all followed on behind, just like the Avon Lady's train.

We arrived home safely I'm pleased to say. It could not be true to say that Pete Smith tows like a dream, more I would say like a nightmare, but he did get us there. I understand he was cleared for take off three times.

We arrived back at Dave and Pat's in Mulgrave and then everyone felt better. Despite the set backs we had had a good day and were ready to face the week - for a good rest.

BRIAN LYNCH

REPORT ON THE 2nd GENERAL MEETING OF THE SCUBA DIVERS'
FEDERATION ON THE 8/5/75.

The meeting opened with the minutes of the February meeting being read.

The main outwards correspondence was a letter to Mr. Brian Dixon of "Youth Sport and Recreation" on the 11/3/75 to which there had not at that stage been any reply. The letter had dealt with S.D.F. recommendations re diver qualifications especially relating to regulating the hiring of year to untrained people. Inwards correspondence included a letter from V.S.A.G. relating to Marine Parks and also liaison with other diving organizations.

There were no apologies and after the Treasurer's non-report (the new treasurer had not at that stage received the books), the evenings general business was entered into.

1. MARINE PARKS: A committee has been appointed by the Victorian Government to undertake a feasibility study into Marine Reserves. The members of the committee are from Ports and Harbors, the Victorian State Museum, Fisheries and Wildlife and perhaps the Ministry of Conservation and are primarily seeking to discover all the various types of interactions applicable to marine parks, e.g. Provision for spoil ground, blasting, dredging, future expansion of shipping ways, commercial and sports line fishing and so on. The areas being considered include bands around Port Lonsdale and Point Nepean, the Kelp Beds, Mud Island environs, Swan Bay and the Portsea Hole area and near Channel Fort.

Mr. Phil Hollis of Underwater Explorers moved that the S.D.F. write to the above committee re representation at a voting level on this committee. This was seconded by Bass Strait. A V.S.A.G. amendment that the letter be changed, to asking that S.D.F. be used in an advisory capacity, was defeated, all voting against except Hawthorn and the original motion was then carried. (8.21pm - 9.16pm)

2. BUOYANCY COMPENSATORS of various types were studied and criticized with the aim of finding the best points of compensators and then putting forward a list of factors to look for or recommend. The final result was to recommend a U.S. Divers' Vest, as the original plan seems to have been forgotten. (9.16pm - 10.10pm).

3. MISS YORALLA SPORTS GIRL was discussed shortly as to whether S.D.F. should field a candidate; it was decided that as both Bass Strait and Underwater Explorers were against such a move it

would be better that individuals, if interested, should proceed on their own with any such candidate being proposed as Miss Scuba Diver, rather than Miss S.D.F. (10.10pm - 10.15pm).

4. LIAISON WITH OTHER ORGANIZATIONS: It was decided, that because of the shortness of time left, a later discussion of this item of the agenda be pursued. In the meantime a meeting of the S.D.F. executive would be arranged with the V.U.F. (scuba diving) executive, and a later report would be given on the results. (10.15pm - 10.26pm).
5. TESTING OF AIR CYLINDERS: Postponed.

DAVID CARROLL

REPORT ON FIRST SEA DIVE (TRAINING DIVE) AT THE "CERBERUS".

This being the first official open water dive undertaken by the members under training, no compressed air was used, snorkels were relied upon instead. Despite a rather vicious looking chop and a rather grey and dingy day, five trainees and five supervisors took to the water, Pat Reynolds leading with Bernadette, Dave Moore with Hugh, John Goulding with Gerry, Justin and Janet and Dave Carroll with Ken.

After the initial shock of hitting the water it was very surprising to see that we had about 15 ft. visibility, so the slow crawl to the hulk commenced. Arriving at the bow, agile Mr. Moore leapt out of the water and proceeded to haul the rest on board, and after a combined frog-goose walk to the stern we all entered a large hatch in front of the forward gun turret and into the water. Wonder of wonders! we had an audience, consisting of various gentlemen of the Brighton Yacht Club who were engaged in a picnic of sorts on the deck, and who engaged us in various forms of one way conversation, such as "Yer mad mate". Inside the hull it was not overly light, but the water was crystal clear. The tour commenced and after reaching the stern we retraced our "steps" to exit through the rear turret. Some time was spent looking over the ship and some more time in green-eyeing the yachts tied up alongside. Soon afterwards the visiting ships left with much spectacular footwork and bowline hauling by the respective crews. A few collisions were averted and a last conversation between frogmen and sailors was held, which must be repeated.

Yacht Captain to Diver: You look a bit of an idiotic goose in that gear mate!

Diver to Captain: Don't worry, I've dived on more than one yacht in my time.

Then back to shore.

D. CARROLL

N A U G H T Y

N I N E T I E S

- JUNE 20th 1975 -

A N N U A L

C L U B

D I N N E R

675 GLENFERRIE ROAD,

HAWTHORN

(Near Station)

6.30 p.m.	Start
7.00 p.m.	Dinner
8.30 p.m.	Show
10.30 p.m.	Dancing
11.30 p.m.	All Out
11.31 p.m.	???

\$9.00 a head

B.Y.O.

Tickets,
Reservations, or
Just a Chat, from

DAVE MOORE, 547-2791



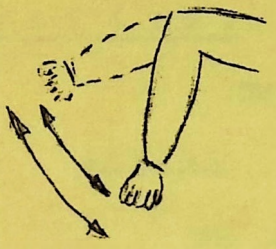
GO DOWN = I AM GOING DOWN



I HAVE NO MORE AIR



I AM ON RESERVE

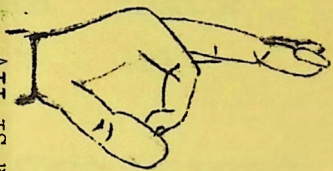


I CANNOT OPEN MY RESERVE



I NEED AIR

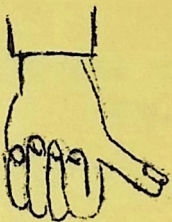
INTERNATIONALLY RECOGNISED DIVERS HAND SIGNALS



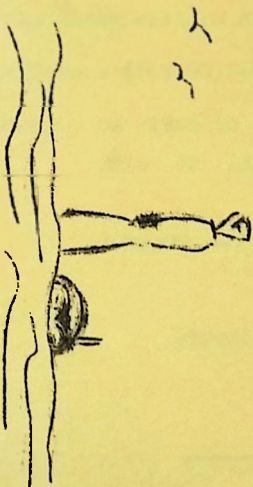
OK - ALL IS WELL



SOMETHING IS WRONG



GO UP - I AM GOING UP



I AM IN TROUBLE



W A N T E D

10 KEEN DIVERS TO GO TO THE OUTER BARRIER
REEF, GLADSTONE, QUEENSLAND

FOR 5 - 7 DAYS

Boat leaves SUNDAY, 12th OCTOBER, from GLADSTONE.

Full Board and Accommodation available on board.

Itinerary includes some of the best reef diving in the
world.

COSTS - \$25.00 / DAY (Air fills extra)

Train fares will be available from writer.

Air Fare - \$191.60 Return.

Names to be given to J. Goulding, IMMEDIATELY.

THIS IS LAST OFFER.

CONTACT -

J. GOULDING

Phone: 480-1411 Business
252-883 Private

POINT NEPEAN -

During the height of the Russian war scare of 1885, the authorities repossessed land owned by John Watson at Point Franklin (Sorrento) and a fort was erected. The fort was improved in 1889. In places electro-magnetic mines were laid and batteries were located at the entrance to the Bay and on Swan Is. (Queenscliff).

The South Channel Fort was built on a mud bank, and constructed from rocks reputedly brought from the Western District. Very large canons were then installed. By 1894 Portsea became a garrison town and barracks and forts were built. Franklin Barracks have now become the quarters for the Lord Mayor's Children's Holiday Camp.

The sandstone and limestone content of the cliffs became important as it enabled deep underground galleries, passages and magazines to be quarried into the heart of Pt. Nepean. In 1908 the Commonwealth reserved some 420 acres for defence purposes, from the quarantine station to the point. This area was extensively fortified during both of the World Wars. Although the guns of Pt. Nepean were never used to fend off enemy attack, the fort lays claim to two unusual facts. As most people know England declared war on Germany at 11p.m. on 4th August, 1914. It happened that the German freighter "Pfalz" arrived at Point Nepean at 12.30p.m., her papers were checked again and being in order was allowed to proceed. At 12.45p.m. the declaration of war was flashed to Pt. Nepean and before the ship could reach the entrance, a shot was fired across her bows - that is, the first British shot fired in World War 1 was fired from Pt. Nepean. The "Pfalz" was anchored off Portsea, the Master and Crew were interned and the ship was renamed and became a troop carrier.

A fantastic coincidence occurred 25 years later, when the same gun, with a different barrel, fired the first shot of World War II. This occurred at 1.50a.m. on the 4th September, 1939 when the freighter "Wondora" attempted to enter the heads without acknowledging the recognition signal. A warning shot was fired across her bows causing her to very swiftly establish her identity.

DAVID MOORE

FLOTSAM and JETSAM

Month after month you probably agree that there is nothing worse than reading this excuse for an article, which we fondly call Flotsam and Jetson. Well, let me tell you; there are two people who suffer more than you. Firstly, there is the writer. Over the two years this column has been going, he has managed to evade bomb blasts, nasty threatening letters, cut air hoses and obscene phone calls, (damn it all). The other unfortunate person is a little (?) lady called Mrs. Bremner. To most of us she is unheard of; but for many years this gallant lady has interpreted our mumbo jumbo and turned it into the "Fathoms Newsletter". The quality of Fathoms publication is unrivalled among other amateur sporting newsletters which come into our notice. Now Mrs. Bremner is hanging up her printing press, so we wish her well in her retirement and thank her sincerely for her splendid work over the years.

The first event to be commented on in this issue is the Annual V.S.A.G. Tube Trip. Members really turned up in force for this monstrous event down the rapid stretches of the Goulburn Valley. The quality of the tubes appears to be getting better each year; however, Max Synon must rate a mention for opulence. With his oversized tractor tube and genuine teak decking, Max was the only person able to go for a walk as we cruised down the river.

After a bit of a shaky start the mob split up into groups as they snaked their way to the Thornton Bridge. They say that Janet lived up to her name by SPEEDING to the finish line first, followed by the mob who were almost at the point of desperation; - no doubt driven by thirst.

On Sunday, 4th May, we welcomed Maurice Gagliarty and his plastic boat, to dive the Portsea hole and Popes Eye. It was a pity about missing the right time for slack water but still we managed a great dive at the Hole followed by a good poke around at the Eye. This dive was an early one, and the boats got away about 9 o'clock. So, with plenty of time left and the sea getting flatter, we headed off to Mud Island for a look. Unfortunately some didn't quite make it... Mad Moore and his boat "Mopsy", after crashing through the rock wall at Popes Eye, developed engine trouble. So there we were, stranded in the middle of treacherous Port Phillip Bay. The other boats not realizing the plight of their comrades, disappeared behind the north shore of the islands. Dave, in desperation, shouted an order - Abandon Ship! - What!! out here!?! Murderous Moore had a look of fire in his eyes. Again he shouted: "Out you slobs and pull me to shore".

JUNE, 1975

Flotsam and Jetsam

With the usual respect which we show to boat owners, dive captains and others who command unquestionable skills and authority, we courageously leapt down into the sea. Then a gasp wrenching crash went through our quivering bodies..... Good old Dave - he managed to break down on the Mud Island sand banks. So we stood up in knee-high water and held the boat steady whilst Dave overhauled the Merc.

On 11th May, a fairly un-highlighted dive was held at Spray Point Road, which was relocated to Diamond Bay, which was relocated to Portsea Reef, which would have been better relocated to the nearest pub to have a counter-lunch.

Still, as Dave Carroll always says - "A dive's a dive". Where was the Cat that day?

Then on to the Gala Night of the Year - THE THING PARTY. Come as a "Thing" said the program, and that we did. There were big things, little things, things with spouts, things with knobs, things with teeth (ouch), things with hair, things with heads. In all just about every sort of thing going and even some that weren't going.

The most subtle thing was Diane Lynch who, wearing a white glove on her right hand, came as a "white pointer". The brightest thing was Trish Cody who came as a reading lamp and let all the guys turn her on. The most surprising thing was Pete Smith who, as a "Jack in the Box" literally popped up from Queensland. Word has it that Pete was trying to pop out of one box into another all night.

We'll slip in a few quick ones, which only those who attended can appreciate. Dave Carroll had a new "Hea-Doo" for the occasion. Dave Moore tried so hard to overcome his inferiority complex. Bob Scott couldn't stand a beer so he took his off. Cody's Ewe-Wine was as weak as p.s.s.

And as for me - well, I was just a fly on the wall.

ISSY 4-WHEEL ?

WHAT CAUSES DECOMPRESSION SICKNESS ?

In the following the term "Bends" should be abandoned when referring to decompression sickness (D.S.), because bends is one symptom (the most common) of D.S.

Since the many symptoms and signs of D.S. are invariably associated with a reduction in pressure, either following an ascent from a dive or caisson, or ascent from atmospheric pressure to greatly reduced pressure with altitude, the obvious answer to what causes D.S. must be "inadequate decompression". This means, in diving, that the rate of reduction in pressure from the time of leaving the deepest point of the dive to reaching the surface at atmospheric pressure (and it might not include decompression stops), was not slow enough for the many factors of the dive that contribute to the occurrence of the D.S. syndrome. However, the basic fact remains, bubbles occurring as a result of inadequate decompression, are the principle cause of the D.S. syndrome.

For many years it has been stated, for the sake of simplicity in explaining D.S. that excess tissue nitrogen was the principle cause of bubble formation. This eventually led to the belief by most divers that only nitrogen was present in such bubbles. Several gases may be in excess in solution in the blood and tissues of a diver during and after exposure to higher pressure (oxygen, nitrogen, CO₂ and water vapour to mention the prevalent ones). If, as a result of inadequate decompression, bubble formation occurs one or more of these gases may also be present in the bubbles.

It now seems indicated that, with strenuous muscular exercise and resultant high CO₂ tensions in muscles, marked local CO₂ super saturation may occur in that area. Under these conditions nitrogen may play a minor role in early bubble formation. Then as the bubble moves away from the formation point, it apparently tends to equalize with the relatively low CO₂ tension in the larger veins. This loss of CO₂ is compensated for by an increase in nitrogen which then becomes responsible for continued growth of the bubble. It therefore seems possible that a gas bubble may start out mainly CO₂ then change to mainly nitrogen in the larger vessels and heart.

In the 100 year history of the study of D.S. it has been apparent that certain types of individuals are more susceptible to D.S. than others. The three principle factors are age, body type and rate of nitrogen elimination. And possibly sex, race and others that are basically individual factors.

What Causes Decompression Sickness? (Cont'd.)

It also seems probably that certain divers have or may develop temporary variations in susceptibility and will develop symptoms of D.S. on some occasions and not on other similar occasions.

Other factors that are suspected on contributing to whether or not a dive suffers from D.S. include vigorous or violent exercise during or immediately following a dive, whether or not the diver becomes excessively cold.

Since 1854 age has been known to be a contributing factor as to whether or not a diver would be susceptible to D.S.

During the last world war, researchers working with aviators found that a definite correlation existed between aviators age and susceptibility to D.S. In a total of over 52,000 subjects between the age of 18 and 28 the incidence of severe D.S. ranged from a low of about 3.5% in the 18 to 19 year olds to a high 39% in the 27 to 29 year olds. Keep in mind these figures were for personnel subjected to tests designed to cause D.S. symptoms and not to routine conditions that would be approximated if a diver followed prescribed decom procedures after a dive.

In the same group of aviators studied to determine susceptibility because of body type. Evaluation of these tests indicate a higher incidence of D.S. in those who tend to be over weight or fat. The lowest incidence of symptoms occurred in lean, slight individuals. Similar tests with animals showed approximately the same results. Probably the higher incidence of D.S. in fat or heavy divers, and in test animals is due at least partly to the high solubility of nitrogen in oil and because of the relatively poor circulation of fatty tissues.

Since nitrogen seems to play a fairly important role in the development of bubbles that cause D.S. symptoms or at least contribute considerably to the expansion and continuation of the bubbles once they have formed there is understandably a correlation between nitrogen elimination and susceptibility to D.S. Results of tests indicate it is not just the rate of nitrogen elimination from the blood which might be quite high as compared to rate of elimination from body tissues, but the rate of nitrogen elimination from the latter that is important.

There is some indication also that extremely heavy muscular

exertion during and immediately following a dive might contribute to symptoms of D.S. developing. It is now felt this is not true and that exercise, if strenuous, might actually contribute to symptoms developing. It was also once believed that a diver who became excessively cold would be more apt to develop symptoms of D.S. than one who stayed quite warm. It now seems the opposite is true and experimentally with some animals, it has been found that cold actually helps prevent bubble formation both during resting and exercising in certain animals. As far as susceptibility of different species is concerned it has long been apparent that the smaller animals have a higher resistance to symptoms than do larger animals. This is thought to be due to the higher cardiac output per body weight and more rapid nitrogen elimination in the smaller animals. Another interesting but not particularly relevant finding that came out of research with animals and D.S. concerned the lower susceptibility of pregnant cats. The resistance to bubble formation in pregnant cats seems to be a circulatory one since it is known that several compensatory adjustments take place in the circulation of any pregnant animal (mainly increase in total blood volume and increase in cardiac output).

Recently researchers in Canada suggested that D.S. could be attributed to decreased blood flow in the capillaries. Their findings are not without foundation because it is known that the volume of circulating blood plasma decreases in animals subjected to pressure and then decompressed. Their theory is that this causes the symptoms to develop and that bubble formation follows only in certain very severe cases. This theory does not seem to account for many of the minor symptoms of D.S. but undoubtedly does play some part in the overall picture of the occurrence and severity of symptoms.

Finally, there is at present no strong indication that the use of antihistamine and motion sickness drugs will contribute to D.S. - their use by divers is not recommended in some cases.

One travel sickness tablet - Marazine - bears a warning: "If drowsiness occurs do not drive or engage in hazardous occupations". Obviously dives should not be made whilst taking tablets, only on the advice of a doctor.