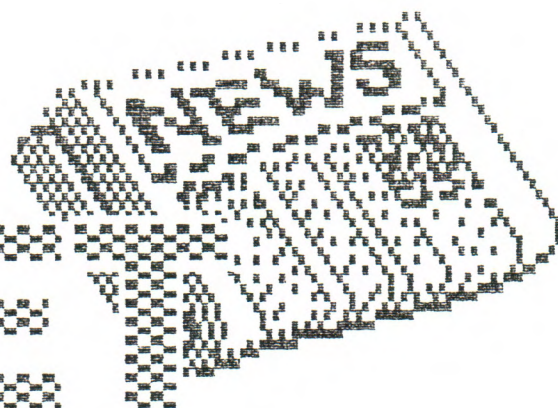


THE

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RAG

MAY 1989

NEWSLETTER

SOUTH

PACIFIC

DIVERS

MINUTES OF CLUB MEETING HELD AT
BANKSTOWN SPORTS CLUB 17/04/89
SOUTH PACIFIC DIVERS

Meeting opened: 8.05pm by Jim Smith

Apologies: J.Mcdermott, Ilona Kandilas, Gumboot, Leslie Stratford
Minutes of previous meeting: Accepted: M.kandilas
 Seconded: R.Latimer

Correspondence-

Outgoing: Nil

Incoming: Letters from Apollo Sports, Aqua Sea, Airdive re sponsorship for A.V. night. Newsletters from Brisbane Water Aqualung Club, Ryde Underwater Club, Fundive and a brochure from Gumtree Tours.

Treasurer's Report:

Balance at 14/03/89	\$1123.58
Incoming Receipts	+ \$ 127.01
Outgoing	- \$ 587.71

Sub Total	\$ 682.88
Petty cash	\$ 20.00
Investment Account	\$3446.96

Total	\$4129.26

Accepted: P.Stratford

Seconded: Rick James

Social Secretary-

23rd April: Dive at Long Reef

6th and 7th May: Norah Head weekend

27th May: Kurnell boat dive

A.V. tickets are now available. Contact Penny for details.

Long weekend in June. Malua Bay weekend booking now.

Publicity Officer-

Please ensure you sign for your newsletter as we only have a limited

number available and some must be posted to members who do not attend meetings.

Dive Reports-

*Peter Stratford dived Osborne Shoals. 10-12 foot visibility. On the way back they picked up a fisherman who had fallen off the rocks. His friends kept on fishing and the man had been in the water for some time. They took him to hospital and then went back to tell fisherman's brother-in-law but he had gone home. No current on the dive and a good time had by all.

* Pennie, Doug and Martin dived the Undola- Penny down first and found the visibility dirty on top but cleared to 40' as you went past the 80' mark. Martin checked to see if Penny was narked by getting her to read the inscription on the loo. There was also some incident with the fishing net.

* Michael Cufer and Nigel Marsh dived at Nelson's Bay for 6 days and had 13 dives in total, all shore dives. They dived at Pipeline and Little Beach which is near the fish co-op. Found some tropical fish. Water temp was 20deg. Average vis. was 6 metre and they only got lost once. They had six night dives and shot 11 rolls of film each and had good results. They recommend the Pipeline. A little harder to reach than Fly Point or Halifax, you have to go along a bush track but there is easy entry and tide conditions apply. Average depth 30-40 feet.

* Ron Mines and company dived at Currarong on the Easter weekend and had a blue current and 100ft visibility on the Easter Sunday.

The diving itinerary was as follows- Friday: crook, Saturday: No diving, Sunday: Blue water, Monday: the pits. Kathy Mcdermott saw her first weedy sea dragon.

* Bob and Doug and Wayne found an Indian fish at J.B. near the Docks, under a ledge where the anchor was. Took some photos.

* Jim Allen and Karen Matthews both club members sailed off last week in their yacht.

* Richard and Brenda Taylor are somewhere in the Indian ocean sailing towards Kenya via Cocos, Keelings and the Seychelles.

* Jim and Wendy now have the mast standing on the Bluewater Bushman. Now ready to go sailing.

Photographic Officer-

* Second round of the George Roberts announced tonight- See end of newsletter for winners.

- * Next George Roberts entries due in tonight.
- * Only two weeks for entrants still wanting to go in the big A.V.
- * If you want slides you have entered in the George Roberts to be entered in the A/V let Grahame know.
- * Judging for the Australasian Underwater Photographer of the year will be on the 4th of June at Revesby Workers and programming for the night will be done on the 15th of June.
- * A photo of a blue ring octopus is required for a book. Acknowledgements will be given. See Sue Keller.

General Business-

Rick Latimer brought to the club's attention an article in Dive Log concerning the Federal Government reclaiming from a diver a bronze cannon salvaged from a wreck. Rick contacted the diver and found out that the cannon had been recovered some time ago in S.A. waters. The diver concerned had not hidden the fact that he had found the cannon and then restored it. he even made the offer to donate the cannon when he died. Discussions with the govt. took place but the next thing he knew was that he was presented with a subpoena for the return of an artifact. This made him very disillusioned with the govt. especially considering his co-operative and open attitude. Moral of the story as far as he was concerned was "Government speak with forked tongue". So be careful if you have anything.

General discussion followed.....

Rick is angry with academic, degreed "arseholes" who do this to divers. Jim feels he is too personally involved in the situation.

Bruce Gardiner argued that wrecks were for everyone and nothing should be taken. This comment bought a call to order from the President. At least now everyone was awake.

There are two spots available on the "Takaroa" leaving on the 12th of October for 10 days. Cost is \$1170 per person. Contact Peter Stratford for details. Phone 817 0779.

Neil Vincent asked whether the prizes for the George Roberts have been confirmed. Grahame Wakeling assured that they had been.

The meeting closed at 8.55pm.

FOR SALE

- * ScubaPro bouyancy vest for sale- \$250 small size see Bruce Spry.
- * Seatite camera housing with dome port. has just been reconditioned \$725. Contact Brian Colwell
- * Seatite Mk1 and Mk2 strobes for sale. complete with chargers and leather end covers. Nikonos II fittings on leads. \$500 for the pair. Also Nikonos II with spare body, plus 20mm lens, 2:1 macro tube and Seatite base plate. Ring Peter Jermyn on 066-572690 for details of both of the above.

GEORGE ROBERTS MEMORIAL TROPHY WINNERS - ROUND 2

	<u>Points</u>	
	<u>This Round</u>	<u>Total</u>
1. Jenny Mines	5	(35)
2. Neil Vincent	4	(29.5)
3. Nigel Marsh	3	(22)
4. Sue Keller	2	(20.5)
5. Peter O'Grady	2	(14)

Congratulations to all entrants and to the winner Jenny Mines.

***** PLEASE SEND BACK YOUR JERVIS BAY QUESTIONAIRES.*****

THIS IS IMPORTANT TO US ALL

MAIL TO THE CLUB P.O. BOX ADDRESS AT BANKSTOWN

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THE COMMITTEEPRESIDENT: JIM SMITH PH-570 4283 (H)SECRETARY: JOHN MCDERMOTT PH- 726-0982PHOTOGRAPHIC OFFICER: GRAHAM WAKELING PH-603-4224 (H) 605-1611 (W)TREASURER: KATHY MCDERMOTT PH 726-0982 (H) 727-0177 (W)SOCIAL SECRETARY: PENNY SMITH PH-759 4176 (H)PUBLICITY OFFICER: NEIL KOOS PH-587-9030DIVE ORGANISER : NOEL TAYLOR PH 78-6792 (H)

If you need to post anything to the club our address is:

SOUTH PACIFIC DIVERSP.O. BOX 823BANKSTOWN 2200.

June 1989

SUN MON TUE WED THU FRI SAT

				1	2	3
4 A.U JUDGE REVESE	5	6	7	8	9	10 MALUA BAY W/E
11 MALUA BAY W/E	12 MALUA BAY W/E	13	14	15	16	17
18	19 CLUB MEET SPD	20	21	22	23	24 S/DIVE PALM BEACH
25	26	27	28	29	30	

SCIENCE

Eye tests reveal dangers of diving

Lesley Newson

AN INVESTIGATION of the circulation of blood in the eyes of divers has produced the strongest evidence yet that tissue damage caused by diving is more common and more severe than had been previously thought.

Phillip Polkinghorne, Kulwant Sehmi, Darwin Minassian and Alan Bird of Moorfields Eye Hospital in London and Maurice Cross of the Diving Diseases Research Centre in Plymouth examined the retinas of 80 divers of varying experience. The researchers found evidence of damage in nearly half the divers.

Although the damage tended to increase with diving experience, some of the divers developed it within two years of diving. The study is the first evidence of damage to the eye tissue in amateur divers and it suggests for the first time that a career in diving almost inevitably leads to damage.

Of the 26 professional divers studied, all had abnormal retinas. None of the divers taking part in the study had visual problems as a result of their damaged retinas, but Bird said that he "would not be surprised to find divers whose damage has progressed far enough to affect their vision".

Evidence has mounted during recent years to show that exposure to pressure during diving subtly damages the central nervous system. Doctors believe that the damage is due to obstructions in the flow of blood through the tissues.

People who take up diving as a sport know they are at risk of getting "the bends" or an air embolism, but if they follow the correct procedures, the risk is very low.

All professional divers know they also run the risk of bone necrosis. About 5 per cent of them develop small dead patches in their bones. Active professional divers have the bones of their thighs and upper arms X-rayed as part of their annual medical examination.

Doctors have been concerned that if diving caused dead patches to appear on bones, other tissues may be suffering a similar fate. Their concern increased in the early 1980s when detailed neurological examinations, and tests of the memory and reactions of experienced professional divers, suggested that some of them might have slight damage to the brain and spinal cord.

Then, in 1986, nuclear magnetic resonance imaging revealed small areas of damage in the brains of apparently healthy North Sea divers. The following year, Ian Calder, a pathologist at the London Hospital in the city's East End, published the results of a postmortem study of 11 professional divers. Seven of them had areas of

damage in the spinal cord that had not been detected while the divers were alive. The samples were too small for researchers in the studies to draw conclusions as to how common such damage might be. The fact that few divers are currently complaining of

diving did not become common until the mid-1970s when drilling for offshore oil began in the deeper water of the North Sea. Over the same period, recreational diving became more popular and the amateur divers began to go deeper.

In order to determine the size of the problem, the researchers needed a

method of looking for the damage in a large sample of divers that did not involve surgery. The damage which occurs in the tissue of both the bones and the nerves of divers is similar. Minute areas of tissue had died, probably because they had been starved of blood, suggesting that capillaries that supplied blood to the areas had been

blocked. The bone necrosis of divers closely resembles that seen in victims of sickle-cell anaemia, whose capillaries are temporarily blocked during a sickle-cell "crisis" when their red blood cells become too rigid to pass through.

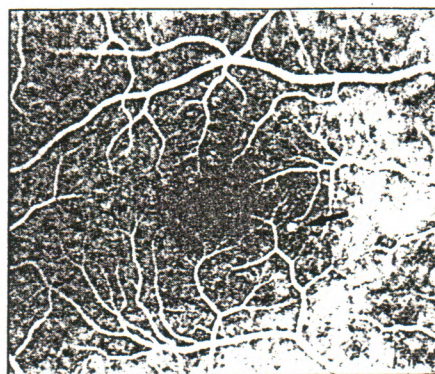
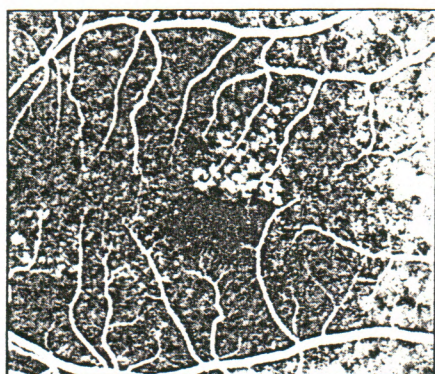
Sickle-cell disease damages the retina, which doctors can see using the technique known as retinal angiography. The process involves injecting fluorescein dye into the bloodstream and photographing the back of the eye through the pupil. The technique can provide a detailed photograph of the two vascular systems supplying blood to their retina without causing too much discomfort to the patient.

The researchers used retinal angiography to assess the tissue damage in divers. The abnormalities that they detected in the angiograms of divers were very similar to those seen in sickle-cell disease.

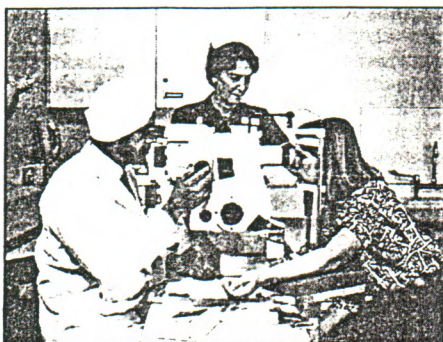
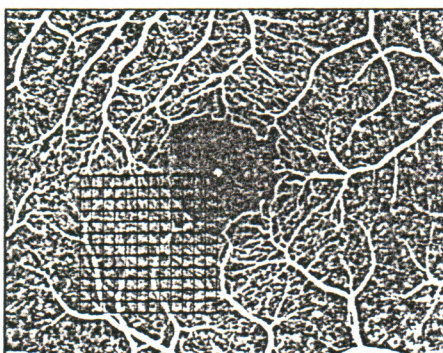
There was clear evidence of obstruction to the capillaries. The researchers suggested three mechanisms to explain how diving causes this obstruction. When divers come back to the surface, air bubbles sometimes form in their veins and their lungs. If bubbles also form in the arteries, they would block the capillaries. Bubbles forming in the lungs trigger changes in the body's clotting mechanism which could result in minute clots becoming trapped in the capillaries.

The third suggestion is that the mechanism might also be similar to that of sickle-cell disease. The pressure that divers experience at 30 metres causes their white blood cells to become rigid just as red blood cells do during a sickle-cell crisis.

The researchers hope that clues to the cause of the obstruction will come from investigations into the individual differences between divers. Some of the divers studied had relatively little damage even though they had been diving for many years and done a great deal of deep diving. On the other hand, a few inexperienced divers had quite extensive damage. □



The angiograms reveal anomalies in blood circulation in the retina. The mottled area of the top left angiogram indicates where the epithelium has lost its pigment as a result of blocked circulation. The bright spot in the top right angiogram shows a small aneurysm



Taking an angiogram and, above, a grid used in estimating the extent of damage

neurological symptoms does not mean that they will not experience problems later in life. There is a great deal of extra capacity in the nervous system of young people that begins to diminish in middle age. Most people who have dived deeper than 50 metres are still relatively young. Deeper

Photographs: Moorfields Eye Hospital