FATHOMS

SAFETY IN DIVING

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Top left: VSAG President Max Synon, diving Solomon Islands, (Photo by Keith Jensen). Top right: VSAG diver Paul Tipping on the bow area and gun of the "Dai Na Hino Maru" in Truk Lagoon. (Photo by Tony Tipping). Bottom left: VSAG diver Justin Liddy at Ewens Ponds, Mt. Gambler, (Photo by David Carrolli) Bottom right: VSAG divers Batry Truscott, Tony Tipping, Paul Sier and Justin Liddy at Ewens Poncs, Mt. Gambler, (Photo by David Carroll).

VICTORIAN SUB-AQUA GROUP

VSAG

Victorian Sub-Aqua Group. Box 2526W, G.P.O., Melbourne. 3001 Australia

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The Victorian Sub-Aqua Group was founded in 1954 and has continued as a strong and active diving club since that time. It is incorporated as a non profit company and has no commercial affiliation with any organisation.

VSAG is committed to the preservation of independant diving freedom. It believes that divers must take a responsible attitude toward the protection and preservation of the marine environment but as a general rule is opposed to leglislative measures that place prohibitive limitations and restrictions on diving activities. Local diving is organised on a bi-monthly basis, generally out of participating member's boats. This is supported by weekend camps, charters to more remote locations and annual overseas trips. The club has a considerable investment in diving equipment.

Regular functions provide an opportunity for members, friends and families to socialice. Each month VSAG meets at the Collingwood Football Club where bar facilities are available prior to and after the General Meeting. Visitors are very welcome - smart casual wear essential.

FATHOMS

Official journal of the Victorian Sub-Aqua Group

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Collingwood Football Club Lulie Street, Abbotsford

Next committee meeting:

TUESDAY, March 27, 8.00 p.m. Alex Talay's 3/7 Cross Road, Chelsea

Editorial submissions to: "The Editor" Fathoms C/- 8 Newlyn Close, Templestowe. 3106

EDITORIAL

With Bay temperatures in the 20's and belated summer sunshine, VSAG diving is happening at its frenetic best. A recent dive on the Kermode involved 7 boats and nearly 30 divers. Ample evidence of VSAG's position as the largest and most active independent diving club in Australia.

Unfortunately, on this day one member's boat was needlessly damaged after launching when its crew and the crew of another boat left their boats virtually unattended in very sloppy



seas (and crowded conditions) whilst the owners parked trailers and cars.

Now that the season is off with a bang ("in" joke!) and our warm water divers are out of hibernation it is timely to use these editorial pages to reflect on how fortunate we are to have the use of members' private boats for club purposes. Most of these boats are expensive and represent a sizeable investment to the owner. An investment that owners are naturally anxious to maintain as well as they can given the peculiar rigours of diving.

Some wear and tear is inevitable but needless chips, dents, scrapes and marks by an unthinking crew are pretty hard to cop and a \$10 contribution to petrol does not even begin to cover the pro-rated expense of using a boat for club dives, let alone the cost of repairing unnecessary damage. I don't know how Robert Swaffer felt but I felt pretty bad as I saw one member, who should have known better, heavily crash his weight belt across the gunwhale gelcoat of Robert's new \$10,000 boat on this very same dive!

If club members are good enough to provide their boats for club outings, non boat owning members should be willing, nay anxious to properly assist with boat and trailer preparation, gear stowage, launch and retrieval, parking, boat handling and other general duties. Generally this is true of most regular VSAG divers but even the veterans seem to have mental aberrations from time to time and wander off leaving it all to the owner and, as happened on this particular dive, to his expense. Let us quickly review a few fundamental rules of small boat diving etiquette in the interests of more harmonious diving and happier boat owners.

- 1. Once assigned to a boat, stick with it you are part of a team. This includes preparation, launching, looking after the boat in the owner's absence, helping to put it back on the trailer, unloading and tidying it up.
- 2. Be early be prepared be on hand when needed. Particularly at launch time ("Executive" crew are a pain in the neck!)
- 3. If you are not already aware of the boat owner's little idiosyncrasies, ask him. e.g. how he prefers you to exit and board the boat.
- Stow your gear in a soft bag. Buckets and bins take up a lot of space - put 4 into a small boat and you have a crown of 8. (This is basic dive school stuff - oft forgotten).
- 5. Ask where the owner prefers you to stow gear. Do not put it in his favourite spot.
- Do not smoke on board without the owner's permission (better yet give it up!)
- 7. Gear up from your soft kit bag, undress into it. Do not leave gear and game lying haphazardly around the boat.
- Enter the water without crashing gear or equipment into the side of the boat.
- 9. Enter the boat only after taking off weight belt (first) and SCUBA.
- 10. Wear your heroes knife on the inside of your leg. By doing this you will not scratch the motor.
- 11.Do not pull yourself into the boat by the motor steering arm. It saves the owner tedious hours of scrubbing grease from the decks.
- 12. Plan your dive and keep your underwater bearings. Do not depend on the boat owner to pick you up.

- 13. Know how to properly secure an anchor rope to a deck cleat. The correct method is quick to tie, secure and easy to release in heavy seas. If you don't know ask. (I'll show you Pat!)
- 14. Offer to drop the anchor and/or pull it up. Offer to dive for it when it's stuck!
- 15. Provide your own food and drink. Try to avoid bringing glassware on board. (It breaks). Remove wrappings, drink containers and uneaten food when you remove your dive gear.
- 16. Do not wait to be asked to return undersize or out of season game to the sea. Do not clean abs or fish on the boat. Do not exceed the "boat" bao limit.
- 17. Don't knock the boat! A good friend of mine recently spent the entire trip explaining to me how the commercial boat he regularly dived from was more comfortable than mine. He can now spend the rest of his diving days explaining to this commercial operator how he once dived from my boat. Because he won't do it again!
- 18. Pay your dive fees immediately following the dive without being asked. Have the correct change - do not ask for credit. Smile when you pay, because the days pro-rated expense for the boat owner exceeded \$100.

Well there you go! What started as a short list ended as a long list. Primarily because I consulted the other boat owners and asked for their pet hates. Please read, absorb and implement.

The slack water drop off on Sunday February 26 provided a great deal of amusement to many VSAG divers. With conditions reminiscent of Bourke Street on Christmas eve, an early tide and freshening swell it was inevitable that a "clone hunt" (clone: short for "shop club clone") would be on.

Your editor bagged two very frightened specimens on the "outside" of the heads in a breaking 15-20 ft. swell! Mick Jeacle caught another lonely specimen just nearby (I thought clones swam in pairs) and John Goulding was sighted towing another toward the Mother ship. Asked what he was trolling he responded "Wouldn't you know - it's a fella. If I'd known I would have thrown it back!"

cont. p.23

COMMITTEE REPORT

Meeting held at Pat and Jenny Reynolds' home Tuesday Feb. 21, 1984.

Apologies: John Goulding, Paul Tipping, Terry Brooks

Business Arising:

Robert Swaffer's application for membership accepted subject to his completion of revised membership application form and payment of subs. (Ed. Note: Thank God!)

Treasurer's Report:

Cash at Bank	\$997.15
Cash at Hand	54.00
Building Society	779.64
	\$1,830.79
Bills for payment	8.00

Dive Calendar:

- Discussion on policy re diving visitors refer notes at foot of dive calendar.
- Report on overseas trip planning by Geoff Birtles. Tentatively: Fiji with Vanuatu a possibility subject to vote by intending participant subscribers. Suggested venue:

6 days
2 days
3 days
12 days

 (iii) "Country Dive" levy set at \$30 per boat for Port Campbell and Tidal River. This to be pro-rated amongst participating divers.

Business:

- Airfills for November Tidal River and January Refuge remain unpaid. (See list this issue - members are requested to pay promptly).
- (ii) Christmas trip (\$360) and Wilsons Prom (\$240) deposits paid out of club funds not yet collected from participants. John Goulding to collect and deposit these funds with club ASAP.

LETTER TO THE SECRETARY

Dear Paul,

Just a few lines from an "old" VSAG Diver to express my appreciation of the continued forwarding to me of the club's monthly journal.

The monthly receipt of same is looked forward to in a manner which can only be experienced by one who has shared a large (past) measure of the joys of diving, as now experienced by the current active membership but who, for a number of reasons is unable to be actively engaged in same now. One of the reasons is not lack of interest, nor ill health.

The monthly journal has kept me up with club doings and it is obvious it has gone from strength to strength and as stated in the October 1983 issue can truly claim to be a strong and active diving club.

My association with the club goes back a fair way and one of the striking differences and marked improvement is the Newsletter. In the early days it was a single Roneod sheet, typed on both sides and whilst an honest effort which did its job, left much to be desired.

The club can be very proud if its present Newsletter format and layout & it befits the club's position and I congratulate those members who over the past years have pursued its improvement to point of excellence.

The material is newsy, informative & also carried a fair share of diving humour.

A number of times I have had the spark to emerge from hibernation and again partake of the pleasure of the dive, but something always intrudes. However, with 3 young sons mad keen on snorkelling and aware of the diving gear in moth balls and keen to have a go, the future prospects appear brighter.

With kind regards to all in the club who can still remember me. I will conclude this initial note.

I would request acceptance of the enclosed contribution toward club funds.

Yours faithfully,

John Noonan (L.M.) **

ED's NOTE: It's momentalike these that make it all worthwhile! John Nooren is a founding member and foundation director of VSAG. To quote Paulie "A prime mover in the early days". John's early contribution to VSAG was recognised with an Honorary Life Membership.

VSAG is changing and aging John. Tips is a father and both Keith Jensen and I have 12 year old sons diving with the club (as guests). We hope your sons once again "ignite the spark" and get you back in the water - with VSAG G.R.B.

MARCH 1984

oFLOTSAM & JETSAM

In this issue, as is the case every March, we bring you another enthralling episode of . . . "Refuge Cove Returned". Its a sort of once-a-year mixture of Brideshead Revisited intermixed with the Goon Show and Peyton Place. However - this year much to the disappointment of Janie Scholes and Janette Large - there was very little evidence of Payton Place - but one could be forgiven for thinking that Dad's Army had invaded - Sorry Lynchy!

Our story last year left off with that fearless captain Reginald Algernon Truscott (known to his good friends at RAT which is short for RATBAG) narrowly missing a 40,000 tonne tanker as he showed Hilary (not Sir Edmund) the finer points of his COCKPIT - or is it a wheelhouse? I always get planes' and boats' terminology mixed up!

So having survived that ordeal we again elected to spend the January 1984 long weekend at Refuge Cove on the Eastern Coast of Wilsons Promontory.

As is customary for this trip a briefing meeting is called on the Friday night of the said weekend. We were fortunate in obtaining the services of the Foster Hotelier who provided light refreshments that helped to quell any fierce debate amongst the masses. In fact, there was hardly any mass-debating that night but then after all, it was only the first night away!

The first sign of Dad's Army became apparent when it was learned that almost the entire crew were booked or overbooked into the local motels. No more of this sleeping under the stars caper, - far too primitive for rugged divers like Geoff, Igor and Alex. For poor old Tony there was risk that he would catch a chill - so Flag Motel for him, and his buddy Max. Only Bazza and a few of the hardy little boaters braved the wilderness - such is the simplistic nature of Haines Hunter owners!

Regardless of all of this, Saturday morning dawned bright and refreshing and for those on the Mirrabooka, the thump of the diesel and the ramblings of the skipper soon had our minds on a weekend of diving and good times.

Captain Reg with the help of a Collins School Boy Atlas of the World found Refuge Cove and after a trip which only seemed like 4.3/4 hours we were wading ashore with great loads of camping gear to set up camp in what has become known as the REFUGE REFUGEE CAMP.

Already Dave Moore, Barry Truscott, Geoff Birtles and Andy Maskowicz and their crews in the advance party of little boats had arrived and secured the best sites. This is normal practise and enables them to detach themselves from the motley lot of big boat people with their mass produced conveniences of pre-cooked, pre-wrapped, pre-cut, prefly-blown food and other modern trimmings so necessary when city folk go camping away from Mother.

Having erected the tents and lunched we departed for Waterloo Bay where numerous crustaceans were seen. Waterloo Bay is not a bad dive. On the northern tip of the Bay there is deep water to 100 ft. and further in along the shoreline, good territory in the 50 to 60 ft. area. This is a regular spot for Reg to take us and usually yields a feed of one sort or another.

That evening there was considerable merriment at the camp, however we must have been well behaved because the Ranger did not have to come across to shut us up. After all it had been a long day, and with the prospect of a full day's diving on the Sunday most elected to get to bed whilst the moon was still shining!

In that rather mystical area of the Promontory between Skull Rock and the huge Rodondo Island, lies Forty Foot Rocks.

Reg had remembered how we had passed close to them last year when his glasses were all steamed up, and suggested we go back there this year for a dive.

Pure Magic is the only way to describe the area. Fabulous drop offs shimmering in a Kaleidoscope of colours of sponges, corals and fish life. Huge caverns and crevices beckoning for exploration – and for those who like bouncing – plenty of depth just off the rocks.

It certainly would rate a mention in my top 10 spots. However, in our excitement nobody remembered to take the marks, so I guess we'll have to wait for Reg to take us back before we can dive it again.

Sunday afternoon the little boat people went to Rodondo Island - an incredible site rising 1150 feet straight out of the sea. This pyramid shaped island often has its peak covered in cloud and looks to have almost tropical rain forest vegitation on its upper slopes.

Reg took the rest of us to a place called "The Mouth of the Roaring Meg" in the bay known as Fenwick Bight. Now there's quite a story behind these names and it relates to a story long ago when Reg was a strapping

"DIVERS DO IT DIGITALLY"

Diving Microcomputers by Keith Jensen

With new developments in diving equipment and accessories appearing on the scene daily, we are fast entering a new era of electronic diving instrumentation.

Geoff Birtles recently showed me the new "Hans Hass Deco-Brain" that he has on loan to test and evaluate for a major city retailer. The makers claim that it measures elapsed time since leaving the surface, indicates ambient depth, forecasts time required to return to surface (inclusive of deco time), warns of approaching maximum deco dive bottom time, indicates depth and duration of next decompression stop, provides a warning if safe ascent rate is exceeded, computes decompression needs and indicates countdown to zero saturation inclusive of repetitive dives. We shall await Geoff's unbiased, no frills, of the cuff test report on the Deco Brain.

On our recent Jervis Bay trip I noticed Doug Catherall wearing a new TEKNA digital dive timer. I just had to have a look and to say the least I was very impressed. With no switches or dials to set or reset it registers your bottom time, shows surface interval, counts your dives and tells when 12 hours have elapsed since your last dive, indicating that it is safe to make a high altitude flight. It is certainly a big improvement over the bottom timers that we thought were so good just a couple of years ago.

American Scubabronics have just marketed a small (3.5/8" x 2.3/8") pocket size dive computer programmed with the US Navy repetitive dive



and air decompression tables. Enter depth and bottom time of your first dive, surface interval, planned depth of second dive and the unit will compute your residual nitrogen time and maximum no decompression time for the second dive. If you are planning a decompression dive it will calculate the number of minutes required at 10' to decompress.

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It also has the ability to calculate air consumption rates and will predict how long a diver can stay at a certain depth with a given amount of air or how much air is required to stay at a certain depth for a given amount of time. I am sure that it is just the thing for our repetitive diving. Cost in the U.S.A. is \$50. I wonder which smart dive shop in Melbourne will get them first. They are sure to be a winner.

The electronic age will now let you have a "Claytons Dive" in the comfort of your own lounge room with video tapes for the arm chair divers now available. C.B.S. Fox video have packaged 11 double feature dive cassettes by Ben Cropp and will soon release an additional 4 tapes. These are now available for hire from Myers Stores. Ocean Realm, Miami Florida have produced a one and a half hour video tape at a cost of US\$55. These are sure to be on the market here soon. ******

HIT LIST

The following members owe the club money for air fills. Please slip a cheque in the mail or pay our Treasurer at the next General Meeting. Cost of fills is \$2.00. The number of fills is listed beside each name.

TIDAL RIVER

A. TALAY	2	A. MASTROWICZ	4	M. JEACLE	3
D. TWINE	1	J. GOULDING	2	G. BIRTLES	3
I. CHERNISOV	3				

REFUGE COVE

G. BIRTLES	3	R. BIRTLES	1	A. TALAY	2
I. CHERNISOV	2	B. TRUSCOTT	3	P. REYNOLDS	2
A. MASTROWICZ	3	G. MASTROWICZ	3	B. SCOTT	1
D. MOORE	1	D. HENTY WILSON	2	B. SOULSBY	2
T. AVERY	4	W. McDONALD	3	P. JONES	3
J. LAWLER	3	J. GOULDING	2	M. SYNON	2
M. JACKIW	2	T. TIPPING	3	P. SIER	4
J. LARGE	3	M. LARGE	2	I. SCHOLES	3
J. SCHOLES	3	W. CANNON	3	H. CANNON	3
B. LYNCH	3	D. CATHERALL	3	G. THORN	3
R. THORN	3				

BUDDY DIVING

ONLY FOR THE LONELY? by Dick Anderson

On a recent trip to Chicago I had a chance meeting at the airport with a highly respected, notable and articulate diving Ph.D. His association is with the U.S. Government and my association is mainly with myself. We had a friendly but lively discussion while waiting for planes in a comfortable VIP lounge. I will not mention the man's name because I really don't know him well enough to be attuned to his whole philosophy, and a condensation of one segment of his outlook could be considered somewhat out of context. Besides, I like the guy and he can tell his own story if he wants.

The topics of conversation were mainly limited to buddy diving and decompression diving. I shocked him with my candid views on buddy diving and he shocked me with his views on decompression diving related to sport divers.

My feelings on buddy diving are rather basic and refer to my individual preference. I'm not going to say what I think is good for the nation, other divers can decide for themselves about that - or get it crammed down their throats. I'm only talking about what I prefer for me. Personally.

I think buddy diving is a pain in the butt. I would rather dive alone and die alone. And I probably will. That's the way I want it. I consider it my human right to use my fragile human body any way I see fit. If I want to dive in a manner that some experts consider contrary to their views of safe diving practice that's my business. I do not want to have buddy diving crammed down my gullet because a panel of experts, with diving credentials and little diving, believe it is good for the masses. It may be good for the masses but it's not good for me. I alone can be the best judge of that.

I'm not against buddy diving. In fact I'm all for it. If that's what people want to do so much the better. A lot of people are more comfortable with a buddy. There have been many times when I was quite happy with the presence of a diving buddy. There have been other times when I wished I had one. But that should be my option. It is my right to choose the mode to suit the situation. It should be anybody's right. If someone wants to dive alone it is his right to do so - even if he drowns doing it. And if you think buddy diving is a guarantee of longevity, think again. It's my guess that the statistics on buddy diving deaths would shock even that panel of experts. I don't think you'll ever see those statistics. They might prove contrary to what the experts think is good for the masses.

Here's what I have against buddy diving. This is my opinion, for me alone, and not a general recommendation. Buddy diving requires two men to do the work of one. In a dangerous situation it imperils two lives instead of one. In a working dive, putting two men down to perform the work of one is costly. If it's really a one-man job, the working diver is trying to do his work and keep an eye on his buddy at the same time. It's inefficient, annoying and dumb.

In sport diving, buddy diving only works best if neither diver has the experience to feel at ease down there. Usually buddy diving has a dominant diver and a subordinate diver. The dominant diver does what he wants and the subordinate diver follows, hovering here and there, humming to himself. If both parties are happy with this, fine. But a subordinate diver doesn't stay that way. Sooner or later he's going to say to himself, "Why am I following this loudmouth all over the place; I think I'll grab my own lobster." Unless you're sight-seeing, sport diving is just a lot more fun, and far more relaxing, when you do it alone.

Well, that is the essence of my side of the conversation with the diving Ph.D. I would say he was clearly shocked. He really didn't offer any protest. There wasn't time, and I don't think he had ever heard such candid outrage before. He was a little awed by such diving arrogance.

If the Ph.D. was somewhat awed by my views I was really frightened by his views on decompression diving for sport divers. His solution was a simple one. Eliminate all decompression dives for sport divers. Solve the problem by elimitating it. There is no valid reason for a sport diver to descend to a depth requiring decompression. A sport diver should be content to dive in shallow water where most of the attractions are anyway. Don't teach decompression, no tables, no meters, no problem.

I didn't offer any protest to what he said. There wasn't time and I was sort of overwhelmed by the implications of what I had just heard. I was speechless.

"I'm not sure I have my finger on the pulse of the American diver but I have a feeling that most divers would object to a no-decompression-dive restriction. But here's the part you have to understand. The man who put this forth is a really good man, he's a thoughtful man, he has genuine interest in the safety of the diving public. But he's government. Government is a friend of the masses and an enemy of the individual. The MARCH 1984

OCEAN REALM

Magazine News

by Keith Jensen

Just a couple of issues ago I reviewed National Geographic. Those that took my advice and subscribed would have enjoyed the January 1984 edition with an article by Hillary Hauser and photography by David Doubilet on our own freshwater dive wonderland at Mt. Gambier. If you have not already seen it I suggest you beg, buy or borrow one as it really is worthwhile.

Like a fresh sea breeze, a new dive magazine has emerged. "Ocean Realm", to be published quarterly. The creators are several of the people involved in producing "SPORT DIVER" before its publishers decided it was too costly to produce.

Ocean Realm's publisher and editor Richard Stewart certainly knows how to formulate a divers magazine. Articles are well written, researched and illustrated with some of the best underwater photography I have ever had the pleasure of looking at.

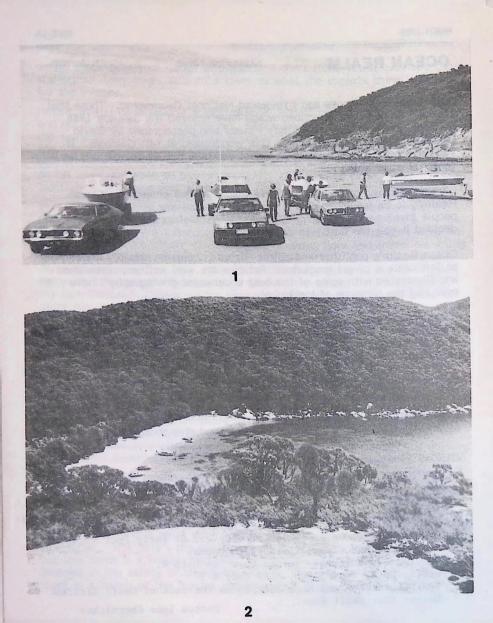
It has all the usual sections; travel, marine life, technical, underwater photography - all by some of the best known names on the US dive scene. Printed on good quality glossy paper, it is approximately 70 to 90 pages with the usual amount of slick American advertising.

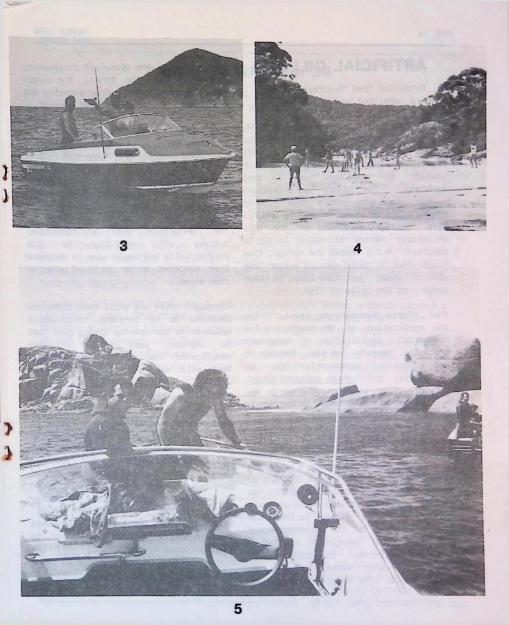
You can obtain it by sending US\$18.00 for one year's subscription to:

Ocean Realm Publishing Corporation, 2333 Brickall Avenue, Miami, Florida, 33129 U.S.A. or from good dive shops. **

WILSONS PROMONTORY PICTORIAL Ps. 14 & 15

- Launching club boats in ideal conditions, Tidal River Nov. 83. Boat owners L to R Mick Jeacle, John Goulding, Geoff Birtles, Andy Mastrowicz.
- 2. Club boats at Refuge Cove Jan 84. Heaven! Or the next best thing.
- A bird in the hand ...! Andy's hand. With wife Gail and John Lawler anchored over the 200ft drop off at Forty Foot Rocks. Rodondo Island (Tas.) in the background.
- 4. The lads at cricket. Refuge Cove '84 L to R. Geoff, Dave, Bruce, Bob, Alex Andy & ?
- 5. Igor Chernichov and Mick Jackiew on the deck of Geoff Birtles Haines near Skull Rock. Photos Igor Chernichov





ARTIFICIAL GILLS

Extracted from "Business Week" & submitted by Ian Scholes.

One morning in November, 1976. biochemist Joseph Bonaventura drew some blood from his arm and mixed it with chemicals that make a plastic foam similar to the type used in seat cushions. The result was a urethane sponge that Bonaventura says "looked like a piece of liver". When he and his wife Celia, directors of the Duke University Marine Biomedical Center in Beaufort, N.C., tested the sponge, they found that it could capture oxygen from air or water just like blood in human lungs - or the gills of fish.

That simple discovery may revolutionize the exploration of the oceans and the commercial exploitation of resources that lie beneath the sea. Because it can function permanently like an "artificial gill", which collects oxygen directly from seawater, the sponge may provide divers with an unlimited supply of oxygen.

Aquanautics Corp., a San Francisco company set up in 1981 to develop marine technology, plans to develop a prototype diving system by the end of 1984 and to be near commercial production within two vears. Such a system would probably consist of tanks similar to those now used by divers. But the cylinders would be filled with hemoglobin from blood immobilized either in polvurethane sponges or other materials, such as ceramic beads. The hemoglobin molecules

will trap oxygen dissolved in seawater pumped through the tanks. The oxygen can be drawn off for use by exposing the hemoglobin to a weak electric current.

Bonaventura calculates that about 2 lb. of hemoglobin, compared with about 1.1/2 1b. that is in the human body, could trap enough oxygen to support a human indefinitely under the sea. A container 3 ft. in diameter and about 10 ft. long could provide enough axygen for 150 people to live beneath the sea, he says. The hemoglobin used in commercial made systems will probably he synthetically but could also be obtained from outdated blood in blood banks or from animals.

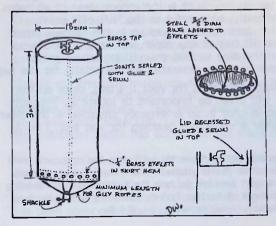
Although there are still many technical problems to be overcome, Aquanautics believes it can develop diving gear that lighter. less costly, and less is complicated than current systems and that will work at any depth. And the "hemo-sponge" technology has application divers. providing air for bevond Because oxygen is so precious under the vehicles and, machines used in sea. now powered by undersea work ате than engines that batteries rather "If you have depend on combustion. oxygen, then you can burn fuels," says Bonaventura, who explains that a pound of kerosene packs 300 times the energy of similar weight. of a battery Aquanautics has contracted with Makai Ocean Engineers Inc. in Oahu, Mawaii, to develop power systems that will use oxygen trapped from seawater to power both manned and unmanned submersibles.##

HOW TO RAISE A J4

or BUILD YOUR OWN LIFT-BAG by Des Williams

So often when divers locate a heavy object on the seabed, they find themselves incapable of raising it without going to great expense of time and money. The usual suggestion for lifting the find is the oil drum. In theory that is as good a means as any: inexpensive and ... but anyone who has tried using them learns to hate the cussed things. In real sea conditions and a strong current try placing a couple of oil drums over an object. If you have gone to the bother of welding lugs onto the drums, you'll avoid some of the problems. Just lashing them up with rope is really asking for trouble: ropes chafe and stretch or abrade themselves as two inflated drums bounce together. Things are just going nicely when a drum bursts free like a runaway rocket. Or you get your hand squashed between them as they clang together on the sea swells. Oil drums are best for holding oil!!

However oil drums have about 400 pounds of lift each, a good capacity for actual use. Therefore, the answer is to make an oil drum from flexible materials to avoid problems and dangers. Four layers of PLUVIAC (nylon impregnated with P.V.C.) can be sewn up into a cylinder by a canvas goods manufacturer, with a circle of heavy brass eyelets around the skirt hem, and plenty of stout nylon stitching in the side walls, "lid" and all seams. Now you have a flexible oil drum.



Dimensions: 3 ft. high 18" diameter. Next a steel ring should be welded up to lash in mouth of bag to the brass evelets. This is the most important aspect of the whole lift bag design. Lacing a rigid hoop at the mouth of the bag, makes it stay wide open all of the time. The strain of lifting is distributed evenly around the bag, and the ring serves as a strong attachment point for the four nylon harness ropes which hang beneath the bag PAGE 18

and meet at a heavy shackle. These harness ropes should be no longer than necessary to meet in the middle. Otherwise an object hangs too far below, & it is awkward to put a lifting strap on to it at the surface.

In the top of the bag a household tap (brass) should be fixed, so that the bag can be vented readily. The joint should be gunked up with sealing compound (as are all the seams). This tap is very handy in actual use as the bag may be partially inflated to swim out over a job; opening the tap it can then be taken down into position. Again, when the object has surfaced & is being hauled aboard the bag may spill over & fill with water. Opening the tap tap drains this potential headache.

Many a mistake has come from building a lift bag too big. The volume to weight ratio is critical & therefore the average salvage job is best suited by the above described 400 pound lift bag.

Oversized bags can be disasterous, because as the bag ascends with a small object & only partially inflated (enough to lift the object), air inside keeps on expanding without a chance to spill out, thus the ascent velocity accelerates enormously depending on the depth. On reaching the surface the whole mass leaps out of the water, & the trouble begins; the air spills from the bag & the whole lot sinks rapidly & dangerously on the diver below, or the rope breaks with a jolt or the bag bursts. Not a pretty sight at all!!

Blimp shapes & low squat bags are a no-no as only a vertical cylinder type bag provides the most stability.

To inflate the bag simply allow air from your regulator to fill the bag. Things start to happen quickly now & you must check on several things as you inflate the bag. Is the tap on top shut? Is the object clear of all ropes etc. & ready to rise freely? Finally, be careful as the "lift off" point approaches that your regulator doesn't get hooked up in the harness ropes! It must be appreciated that a lift bag at any depth will take a lot of your air to fill & you have to plan the dive so that your filling comes pretty soon after reaching the bottom or use a separate tank especially for the bag.

It is wise to choose highly visible material for your lift bag, since on the bottom or at the surface, it will often be important to locate it. This sort of bag makes an excellent sea-anchor in an emergency situation & the diver will soon find it is a very handy & capacious gearbag for wet suit, fins & diving paraphernalia. ******

ED'S NOTE: Des can always be relied upon to "come through" when the chips are down! This is exactly the type of "how to" or "build yourself" contribution that we need. e.g. "Construction and use of a snare" (and how to save the \$1000 penalty!) "Welding with Plastics", "Care and Maintenance of Trailer Tyres", "Building an U/W torch or Cave Reel", "How to Build Tank Racks", - say no more? G.R.B.

'DUGONGS'

by Warrick McDonald

In May last year, I was fortunate enough to dive with VSAG on the Vanuatu trip. One of the many highlights of the trip was my close encounter with a DUGONG!

The Dugong I saw at a distance of no more than 5 ft, was about 8 ft. long, with fair hair and large breasts. It swam slowly up to me, stared and then swam towards the main group of divers, most whom had their back to it. Back in Australia I consulted "The Cousteau Almanac" and would like to share my findings with you.

"Down to the waist (the creature) resembled a man, but below this it was like a fish with a broad, crescent-shaped tail. It's face was round and full, the nose thick and flat; black hair flecked with grey fell over it's shoulders and covered its belly. When it rose out of the water it swept the hair out of its face with its hands; and when it dived again it snuffled like a poodle".

The "Manfish" described above was probably a Manatee or Dugong, a now rare sea mammal of the order Sirenia. The description above was given by a fisherman in 1671.

There is only one species of Dugong, and where it once ranged from the Red Sea to the Marshall Islands it is now only found in concentrations off Mozambique, New Guinea and Northern Australia. The Dugong differs from the Manatee, having a split tail like a whale. Also called "Sea Cows" they have thick, bulbous, cleft faces with long course bristles covering flexible lip pads and short tusks.

Sirenia are the only herbivorous mammal in the sea. Sirenia, like whales, have been hunted for their meat and because of this their population has declined precipitously. The worst place has been Australia, where Dugongs have now been protected from all but aborigines. Shark nets, herbicides and industrial waste has accounted for many Dugongs.

The Dugong is a peaceful, browsing, cowlike creature who sleeps with eyes closed, rising slowly and sleepily every few minutes for a breath of air, and then sinking again. Waking from a nap they may close their eyes and arch their backs, or bend forward emitting a lengthy groan. The Dugong has been observed cleaning its teeth after meals and rubbing their bodies

CONT. P.26

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MIRRABOOKA REFUGEES

A report on the VSAG Labour Day Weekend by Brian Lynch

Our Annual pilgrimage to Refuge Cove, began with an overnight stay in Foster, highlighted by the obligatory session at the Foster Pub. Getting up early we motored down to Port Franklin to meet that living legend Captain Reg Truscott. I had been on the first club trip seven years ago, and Captain Reg didn't look to have aged much at all, seemed to have all the same books too! We filled the jetty up with all our gear, and somehow managed to pack it all into the boat. At seven thirty we headed down river, through the mangroves and out into Corner Inlet. The sea was calm and we settled down for our trip down the eastern shore of the promontory to Refuge Cove. On arriving at twelve noon, we set up camp alongside the smaller tents of the advance parties in the smaller boats.

After lunch we set out to our first dive of the weekend, Waterloo Bay. The sea was calm and the sun shining. Over we went into the cool sea. The visibility was about 20/25 feet, plenty of fish life, and along the shore line a lot of small caves and swim-throughs making for an interesting dive. Then it was time to get back into the boat for the trip back to Refuge, tank filling and supper. After supper we were treated to some jokes and Peter did some great female impersonations, so good in fact that some of our super-studs wanted to change tents.

On Sunday morning we were rudely awoken by the dawn chorus, who continued their songs despite the attention given to them by Pat, who seemed to think that they wanted pine cones for breakfast. We arose eventually, and Tony talked me into an early morning swim around the cove, which made me as cold as Warrick who had taken an unlooked for midnight bathe, the night before. After breakfast we headed out to sea, our destination was Forty Foot Rocks out in the Strait. We set out first in the Mirrabooka, and were soon caught up and passed by the flying Haine's plus Dave Moore.

At first sight the twin rocks looked to be a good dive spot. The smaller boats having already dived were able to tell us that they were anchored in 200 feet and that we were in for a treat. There were seals in the water and on the rock, but they did not seem over-concerned about their new temporary neighbours. We dived in two groups, my group being second into the water. The first divers returned with enthusiastic reports A

for us. Then it was our turn, over the side, and a surface swim toward the rocks. We dived down following a sea-grassed slope. At 60 feet we turned into the rock and swept into a high shallow cave with three Port Jacksons having a nap on the bottom. Then it was up and over a ridge, and a gliding descent along a green valley with a white sanded floor beneath us; quite beautiful.

The visibility was good with the sun lighting up the green slopes all around us. We returned the way we had come, swimming easily between the weed hung walls to arrive again at sixty feet and rest on an outcrop or drop lazily into the large school of Nannygai which were all around in the dark blue of the deep water. A perfect backdrop for the many silver fish, a scene taken advantage of by Heather and Warren, who together with me were the last of our group to return to the world above. A beautiful dive, one of those you wish could go on and on for ever.

Reg's corns were playing up and he diagnosed a wind change, so we headed back towards the Prom and into the Bay of the Mouth of the Roaring Meg, or in Reg's case, Raging Mary. Whilst we were waiting to dive after lunch, Dave arrived with Bruce and Dave Henty-Wilson and this enabled some of us to have a water ski around the Bay, which made a nice variation to the day.

Then it was into the water, again plenty of fish life, but no crayfish for Max. Quite an interesting coastline but there was a ceiling of brackish water, courtesy of Roaring Meg coming down to about two feet below the surface. I was surprised by Warrick who was snorkelling around fifty feet when I met him. On returning to the boat we spent some time on the anchor line exchanging masks with Tony and cutting away about 200 feet of fishing line from Reg's propellor. We were also joined by a couple from Port Franklin who had salvaged a mask from the luckless Melbourne yacht wrecked on the islands a couple of weeks before; did the old wreck Synon's eyes light up at that! Then it was time to head back to Refuge with a few black clouds for company.

It rained that evening, but it could not dim the jokes which flowed like vintage wine into the night. With the honours shared by Mick, Johnny, Ian, Alex and Tony, who continued to tune in to everyone ever after going to bed. It seems he not only snores but talks in his sleep too!

We woke to a dry day but the wind was picking up. We headed out to the south but were forced to turn around and dive in a bay just out from CONT. P.26

DIVE TRIP

Christmas 1984 - Bicheno Tasmania by Alex Talay

It has been decided that the club will run two trips next Christmas, one of which will be to Bicheno on Tasmania's east coast. I will be co-ordinating this trip and invite all members interested in going to contact me on 772 3085 as soon as possible.

Bicheno is situated on Tasmania's rugged east coast and is approx. $2\frac{1}{2}$ hours drive from both Launceston and Hobart. There is an excellent article in last month's SIA magazine for those of you interested in going. Details for your consideration are as follows:

1) TAA APEX AIR FARE: \$124 Return Adult \$95 Return Child 3 - 15 Free Under 3 and nursed

We would have to book in March to gain the Apex fare and would have to pay the full amount 14 days after booking.

- 2) ACCOMMODATION: The Bicheno dive centre has a house and a flat available if required. The house has 8 beds and the flat 5. The rates are \$7.50 per head per day. The local caravan park is across the road from these facilities and the dive centre will organise caravans for us if required for approx. \$15 per day.
- 3) DIVING: The dive centre has a 24 ft. Shark Cat which they will make available to us at any time for \$8 per dive. The diving is generally close to Bicheno but he will go further down the coast if we want. Some of the features in diving are 60 ft. high kelp forests, lots of caves and plenty of crays. The visibility is normally about 40 ft. at Christmas due to Plankton bloom.

John Goulding our friendly TAA man has arranged for us to transport tanks and weight belts without incurring any excess baggage charges. Obviously we will require transport and will have to hire cars. As soon as I know how many people are going, I will discuss the hire car situation with you so we can work out the cheapest way possible.

I would envisage leaving Melbourne on the 26th December and being away for 10 days. **

MARCH 1984

Editorial: from p.4

I know my two catches were very lucky. It was an accidental sighting as I steamed out towards the intact sub. It must be time for commercial operators with big ships to think about placing divemasters in rubber duckies (shades of a Western round-up!) But then that would spoil VSAG's fun.

Also seen at the heads this day. An executive office bearer of the CDAA diving alone at slack! We are not knocking it - it's just good to know they are human too.

Max took his Dive Captain's role very seriously this day and unwittingly provided much amusement to many spectators. In the interest of recognising surfacing VSAG divers (from the crowd) he instructed them to hold both hands aloft, finger tip to finger tip, in the CMAS and PADI nationally recognised on water surface signal of "I'm O.K." One could be forgiven for confusing our divers with ballet dancers in the classical Releve, in fifth position!

The editorial page now proudly bears its own logo - courtesy of Des Williams. Des is a very talented cartoonist and it can only be a matter of time before his dry and quick wit find commercial expression in the media. Thanks Des.

In spite of a resounding failure last issue we have persevered with photos this issue. Alex, who organises the printing, has sacked the contract printer and promised to get us a better stock. Hopefully we are looking good this month. I'll know when you do - too late! But we'll keep trying, thanks Alex.

I have refrained from political comment this month because Dick Anderson, in his article "Buddy Diving: Only for the Lonely", has done it far better than I ever could. Its beautiful prose with a real message. A message that I suspect is very near and dear to many VSAG divers. I hope you enjoy it as much as I did.

Editorial thanks to regular scribes John, Keith, Brian and Des who came up trumps when this issue was looking very bare. Welcome to Igor Chernichov who makes his debut with our middle page pictorial spread and special thanks to Bazza Truscott who many of you may not be aware does the tedious task of address and postage. Committee Report: from p.5

- (iii) New membership application from Peter Boyd accepted subject to proof of NQS certification, proof of medical within previous 3 years and payment of club fees (\$32).
- (iv) Alex Talay presented plans for Christmas trip to Bicheno, Tasmania
 trip is now a goer, details this issue.
- (v) Committee agreed on the need for a second Christmas trip for those unwilling to go to Bicheno. Applications invited from General Members willing to organise and co-ordinate such a trip, e.g. Port Lincoln.
- (vi) Geoff Birtles reported that Fathoms cover is due for reprint and that space on back cover is available for advertising to interested parties. Fee set at \$300. Alan Whiteley to have first option.
- (vii) Geoff Birtles suggested that club motto be revised, as "Safety in Diving" is no longer unique to VSAG. He suggested "Independant Diving Freedom" as a more appropriate sub-heading to Fathoms. Committee felt that we should preserve the history of the club. It was then agreed to incorporate present motto together with "Est. 1954" into twin tank logo and run it together with GRB's suggestion.
- (viii) Mick Jackiw suggested that all members should sign new Terms of Agreement on renewal of annual subs agreed.
- (ix) President suggested committee invite Keith Jensen to fill imminent committee vacancy agreed.
- (x) Des Williams undertook to sell redundant Gestetner and typewriter.
- (xi) Meeting arranged with North Melbourne Football Club re possible General Meeting venue. Collingwood are no longer keen to have us.

Meeting closed at 11.22 p.m. Jenny fed the troops with a delicious casserole. \bigstar

Flotsam & Jetsam: from p.8

lad in his full prime, and a young lass by the name of Margaret (Meg) Fenwick.

Now it seems that long ago Reg had a group on board the good snip Mirrabooka and the fairest maid of all dressed in a skimpy red bikini was the buxom Meg. They had anchored for lunch in a small cove when Reg suggested he and Meg row ashore in the dingy to look for wombats. Poor unsuspecting Meg. There was only one wombat on the beach that Flotsam & Jetsam: from previous page

day and when Reg licked down his hair, repositioned his teeth and took a flying leap at Meg she roared in terror. Her eyes wide in fright and her mouth open like a horse's collar (thats poetic) she screamed her abuses at him. In all of this commotion one of Reg's fingers (or was it a foot??) anyhow I think it was somewhere between finger and foot, lodged in those open jaws which snapped shut with the force of a bear trap, cutting off half the finger .. foot .. ? So now when asked why he's short on size -Reg's answer is ... I Lost it in "the Mouth of the Roaring Meg".

Any similarity between this story and the events of January 29th are purely coincidental.

Returning to Refuge Cove in somewhat of a storm we again embarked on a night of good cheer and were joined by the Rangers in a most hospitable and enjoyable evening of joke telling, marked only by the absence of "Archie".

It was another great Australia Day Weekend with special thanks to Mick Jackiw who again as usual ensured we had air. Thanks to Brian Lynch for organising the food at the right price and to all those who helped by contributing gear. Don't miss next year's trip.

Signed JACK ARANDA

ED'S NOTE TO RHONDA: I think he's back in form! G.R.B.

Buddy Diving: from p.12

government would only be happy if we were all to spend each weekend sitting on an aluminium chair in a U.S. Forest Service campground listening to the ballgame and wearing hard-hats for protection against falling pine cones.

Well, our flights were announced so we shook hands and departed. I admired this man a lot but I had to regard his dive philosophy as a threat to my individual liberty. I don't know what he thinks of me overall but I do feel he regards my dive philosophy as a threat to the safety of the diving masses. Perhaps so, but I prefer individual freedom over safety by restriction. Nothing man has ever achieved was accomplished in perfect safety - that includes the formation of this government that wants to protect us whether we like it or not. *****

ED'S NOTE:

I happened across this article whilst leafing through past "Skindiver" issues to find an illustration for Warrick's Dugong article.

I couldn't find a Dugong but I did find this. It's a gem. I love the man! In an

Buddy Diving: from previous page

era where we see shop club clones incapable of diving alone without the emotional life line of a buddy (under the guise of safety) and both commercial and editorial interests dominated by new generation or reborn trendies, either incapable of comprehending such philosophies (or too "knock-kneed" to propound them) here is a man, widely respected in the American diving industry, prepared to stand up and be counted. And a magazine with enough gumption to print such a "controversial" view.

Certainly this article does not necessarily reflect the views and philosophies of the Victorian Sub Aqua Group. But it does reflect mine! I wish I could have put it so lucidly. Congratulations Dick Anderson. G.R.B.

Dugongs: from p.19

with apparent pleasure, against such things as rocks and poles. Squeals of pleasure emit from them when stroked and during sex a medley of sounds accompany their movements. Dugongs are very inquisitive and will nudge and lick or take things in their mouth. Truly an amazing experience, and one to tell the grandchildren about. **

Mirrabooks Refugees: from p.20

Refuge. Again, similar bottom to our other shore dives, no crayfish again for Max, but he did collect a few Abalone. I descended down the slope to 60 feet, with the visibility and the light worsening. At 60 feet I came across a huge ray resting on the sand. It must have measured 12/14 feet wing tip to wing tip, but it left quite quickly -I must have disturbed it. Then it was back up for a final trip along the valleys and ledges, back to the boat, then a final return to Refuge to strike camp.

We left the cove at 3.00 p.m. A little bumpy but not too bad until we turned into Corner Inlet where we smashed head on into a thirty knot wind - quite an experience, with most of us huddled below decks.

Finally, we arrived at the Mouth of the Franklin. We had to stop due to low water but Doug and Johnny who must have been very impatient, got out and walked. Well actually, they took the dinghy for a walk, quite a fitting climax to the trip.

Quite soon we were able to move up-stream, picking up the hitchhikers as we did so, and arrived at the jetty around eight-thirty. Mirrabooka Refugees: from previous page

We off-loaded, reloaded the cars, said farewell to Reg and finally headed home, in our case via the Foster tip.

It had been an enjoyable trip with thirty divers in all, eighteen on the large boat and twelve spread out between the four small boats. Five ladies survived the trip, and Reece managed to get his dad home in one piece; and that's all I suppose until the next trip.

Some fashion notes to end with, John Lawler's one piece mangrove trotting outfit certainly took the honours, and these eye-popping outfits are available from Maison Ozzie D'ISPOSALS at give-away prices. Reg's Refuge dress also gave a new meaning to natural skin tones, although I think it could do with a little ironing, Reg! *****

ANNUAL SOCIAL CALENDAR

prepared by Mick Jeacle, Social Secretary

As mentioned in the last issue of Fathoms a social calendar would be printed in March in order that members could reserve the dates listed well in advance.

Accordingly, I now advise hereunder the dates selected for the remainder of 1984; please carefullynote same in your diary.

1.	FRIDAY	APRIL 13th
2.	FRIDAY	MAY 26th
3.	SATURDAY	JULY 14th
4.	SATURDAY	SEPTEMBER 1st
5.	FRIDAY	OCTOBER 19th
6.	FRIDAY	DECEMBER 14th

FRIDAY APRIL 13TH:

Venue: Victoria Hotel, 123 Beaconsfield Parade, Albert Park, "Carvery"

Cost: \$16.00 per head, plus drinks

Time: 7.30 p.m.

R.S.V.P.: Mick Jeacle, 1/4/1984 (059) 71 2786

DIVE/SOCIAL CALENDAR DATE EVENT/LOCATION DIVE CAPTAIN MEET AT March 21 General Meeting - Collingwood Football Club 8.00 p.m. Geoff Birtles Flinders Pier March 25 Dive 9.30 a.m. Flinders Area 846 1983 Alex Talav's March 27 Committee Meeting Sorrento Ramp April 8 Dive Mick Jeacle Outside Heads (059)71 2786 9.30 a.m. April 13 Vic. Hotel Social Night Mick Jeacle Victoria Hotel Carvery (\$16) (059)71 2786 Beaconsfield Guests welcome April 20-23 Dive Trip Camp Site Bob Scott Tidal River 367 2261 Note: (1) Deposits required March General Meeting. (2) Fees - \$10 per diver per day, camp fees plus pro-rated country dive levy Flinders Pier May 6 Dive Bob Scott George Kermode 367 2261 9.30 a.m. Sorrento Ramp May 20 Dive Barry Truscott "Wyrallah" 789 6395 9.30 a.m. June 5 Geoff Birtles Airport(!!!) Dive Trip Possibly Fiji - 12 days 846 1983 Note: Fund subscribers will receive details on individual basis. Other interested parties should contact Geoff.

IMPORTANT NOTE TO DIVERS:

- 1. It is a club by-law that club members have priority over visitors when boat spaces are allocated. This rule applies irrespective of early visitor booking. Members who book visitors must understand that the booking is subject to confirmation on the evening prior to the dive, dependent on space availability after member requirements are met.
- It is important that intending divers confirm with the Dive Captain on the evening prior to the dive irrespective of early booking. Failure to do this may result in forfeiture of reservation. **

