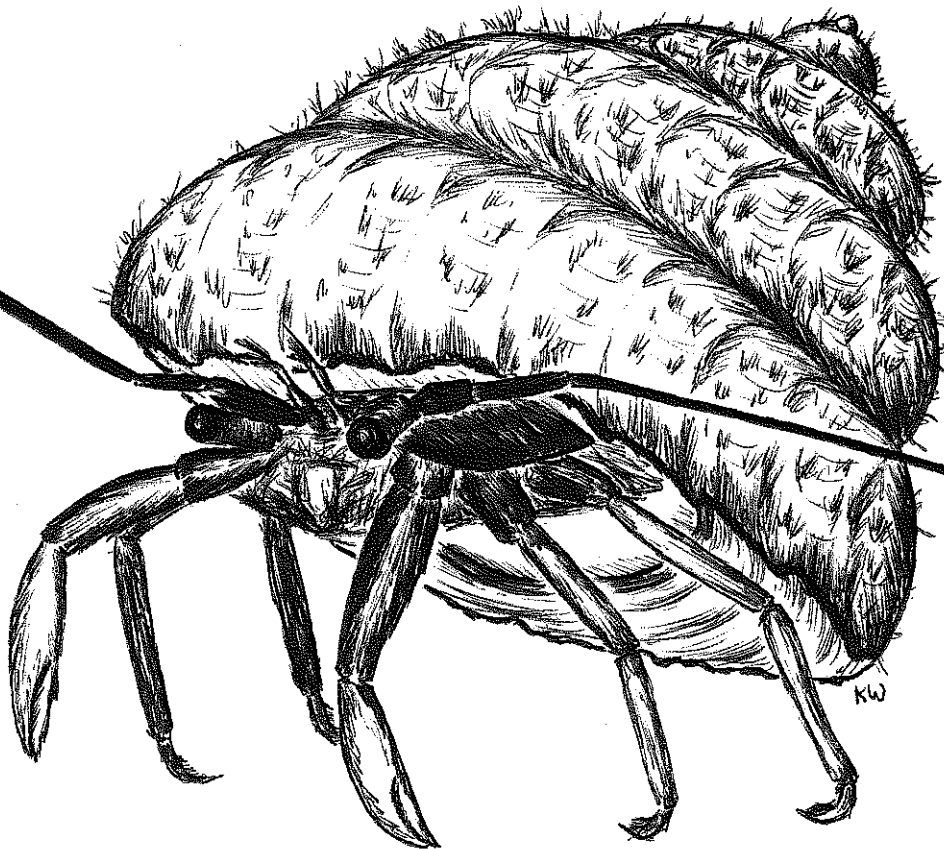


# FLOTSAM

Sept '78



Hi and welcome to the last Flotsam of the year owing to exams coming up - study, worry, paranoia etc. A thousand apologies for the long delay between editions, there have been a few unforeseeable problems so that events date from early June.

In case you didn't know, AUUC now has a new committee:

Chris Batterhill	ph 663 061	PRESIDENT
Gary Housley	34 019	SECRETARY
Brian Dobson	542 114	TREASURER
Kathy Walls	573 610	PUBLICATIONS
Mark Killip	679 387	TRIPS
Steve Crow	-	SCIENTIFIC
Alistair McDiarmid		SCIENTIFIC
Brian Michie		GEAR

If you need to know anything about AUUC the committee will be more than happy to inform you. The actual AGM although advertised extensively and well in advance, had a showing of about 20 members of our 300. If you're planning an after-finals trip to get-away-from-it-all, relax etc then you may be interested in borrowing some of the gear which the club owns for this purpose. All we ask is that you look after this gear and report any damage through natural wear and tear.

I'd be more than interested in any reports of club activities - trips, socials and the like so please bring them to put in Flotsam. Also, if you have anything for sale then it can be advertised in Flotsam.

Kath -editor

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PRESIDENTS NOTE

Your club has now got a dynamic new committee and executive who are incredibly good-looking, bright, eager to help and modest, so the club next year is going to start off on a very active programme of trips, socials and films. Trips will be run almost weekly through the first half of the year with more overland camps and snorklers dives (snorkling becoming a dying art). There may be some very cheap trips coming up - leaving for the barrier and inner gulf islands from Panau. Also, underwater sports will be flourishing - we will have at least one underwater hockey team competing and we are thinking of organising an underwater orienteering course, river and lake dives and teams for the diver-driver rally. Shortly the club will have its new outboard and perhaps some more tanks thereby increasing our potential to help you dive more cheaply.

Back on land more socials are being organised and these are guaranteed to please. Regular film evenings are also being looked into. If you have any suggestions on any other events or an organisation - please bring them to the Monday meetings.

Chris Battershill

P.S. Good luck with any exams and have a good holiday.

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IN AN ATTEMPT TO PUT OUT A FIRE.....

The fact that the last trip to the Knights and the very recent Challenger trips costing \$10 a day brought strong abuse from a small number - they claim that club policy is to promote cheap offshore charter trips and that the idea of paying \$10 per day instead of \$8 is simply outrageous. The fact that the club was consciencously making a profit on trips of one or two dollars per person was simply unacceptable.

But in my opinion and others of the reigning committee, these people are not thinking of the club as a single unit. They see their future in the club involving just a few cheap charter trips and nothing more. It is our aim to pick up the pieces of club assets which are wasting away from simple abuse and no maintenance, and to refinance a new club outboard. Not by making a profit but by reducing losses.

Two large tents have to be repaired. It is the aim of the trips officer and the president to promote more camps so that people can get to know each other over a weekend or a week rather than a rushed day trip. We also maintain that diving will as a result be cheaper. We are buying an outboard motor to speed our 12 foot parkercraft THIS SUMMER and for several following summers.

We are trying to make it all happen now and for the keen ones we hope to get next year. This club has got to stay alive but it cannot afford to lose money and assets like it has in the recent past. Profits made on one charter trip help cover the losses made on other trips.

Trips O. M. Killip.

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POOR KNIGHTS TRIP, May 7th.

On the night of May 6th, several members stayed at a motel in Ngunguru (\$5 each), and others at a cabin at the Ngunguru Motor Camp (ph NGU 851, cost \$1.75 each). When you book accommodation at Ngunguru, it's a good idea to state that you're in this club, since the motor camp and some motels will then charge reduced prices.

On Saturday morning others arrived from Dargaville, but the "Lady Jess" had to wait half an hour until the laggards arrived from Auckland. The weather was sunny and calm as the "Lady Jess" set forth for the Poor Knights. Those members that brought spear guns had to endure some snide comments from others.

The sea was calm enough (barely) for diving at the Pinnacles, and so we moored alongside the Tie-Dye Arch. We entered the warm water (21°C) to find that the visibility was poor by Poor Knights standards (only 20 meters). Descending past the vertical cliffs through swarms of blue mao mao and demoiselles and irridescent ctenophores, we entered the Tie-Dye Arch. That's an incredible triple arch, with its apex just below water-level and its rocky floor at 15m depth, with an enormous variety of fish. When a torch is shone onto the piers of the arch a blaze of colour is reflected back by the densely packed sessile animals - scarlet, magenta, orange, yellow and green. Sea eggs were cracked open and their flesh was eagerly gulped down by appreciative leatherjackets, red pigfish and Sandager's parrotfish.

Swimming back to the boat, we were joined by a couple of Aussies who'd given up the struggle against the current to reach their dive boat on the far side of the arch. Later, it came round to our mooring and they swam across to it.

We then moved north to the main group of the Poor Knights, passing under the spectacular Southern Arch to South Harbour. Bishop's cave delighted everyone with its incredible swarms of fish and when we passed through it into South Harbour, huge schools of

koheru kept swimming past. The reef fish followed us around and as soon as anyone moved near a sea-egg it promptly got covered by squirming groups of fish, who weren't prepared to wait until we'd cracked it open for them. Even black angelfish and moray eels will eat out of your hands at the Poor Knights, whereas both species are very shy elsewhere. One novice was drifting over the seabed at 13m when he was rather startled to see a very large eagle ray directly under his flippers. It glared up at him and waited for him to move aside, which he did do (rather hastily).

Garry J. Tee

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## LITTLE BARRIER DIVE

11 members of our club arrived at Leigh on the 3rd of June and were all loaded by 8a.m. with 10 divers from Sub-Aqua. The skipper offered to make a rendezvous with a school of dolphins for us to meet en route to the Moke Hinaus. However the brisk wind and the choppy sea made the trip to those very exposed islets seem inadvisable and so we headed for Little Barrier instead. After 2½ hours we anchored off the northern side of Little Barrier in rather rough conditions which made some people too sick to dive. We started to plunge into that murky warm water (18°C). Dave Riddel jumped in without checking that his gear was well clear of the boat. As a result there was a loud bang as his contents guage caught on the railings and tore its high-pressure hose from his regulator. The guage itself hit Brian Michie in the face and Dave splashed into the sea with air gushing noisily from his regulator.

The pinnacles there rise from 40m to 6m depth, covered by abundant sponges and anemones, with crinoids and some Solandaria hydroid trees being grazed by Janus nudibranchs. There were large numbers of blue maomao, butterfly perch and leatherjackets but no crayfish were to be seen. After the divers had returned and the roll call had been checked, we moved to the sheltered northern side of the island, under those spectacular cliffs of varied and colourful volcanic rocks, ranging from solid masses of black and red lava to white ash. Some went snorkelling, while the divers who'd missed out at the first site went diving there.

After lunch the boat moved about 1km to another sheltered anchorage. The water was clearer than at the first site, with a maximum depth of 15m and with an interestingly varied sea bed of sand, rock and Ecklonia.

As several divers were returning to the boat a large launch drove straight past at high speed, dangerously close to our divers. That stupid skipper looked indignant when several people shouted to him that the Challenger had a diving flag displayed.

G. Tee

FOUR KNIGHTS TRIP 24th and 25th June

A bright Saturday morning rewarded those who had decided to stick with the trip even though earlier on in the week the weather had been unsettled (cancellations cost the club \$100!).

The 'Rikoriko' took us out to the 'Knights' over a N.E. swell which I am very sorry to say played havoc with those mariners who had eaten bacon and eggs for breaky. The swell prohibited diving in any of our usual spots however Rikiriko Cave was sheltered and we dived inside and made our way to the sunlight at the entrance. (I wonder if we can log it as a night dive?). Visibility was at least 60 metres and two divers were greeted by a pair of randy dolphins - livening proceedings up somewhat!

Sunday was near enough to a perfect Four Knights day. Hardly any swell meant a dive on the North side where apart from the normal fabulous scenery, a big stingray was seen resting in a shallow 'well' at 30 metres. Nursery Cove after an 'a-la-bateau' meal concluded the weekend on a high note - there a some pretty obese Coris sandageri there now, thanks to Doug and company.

G.H.

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FOUR KNIGHTS TRIP, weekend 19th-20th August.

Seventeen people turned up for this trip on the charter boat 'Rikoriko'. We were particularly lucky with the weather as Easterly storms had been building up prior to the trip and broke the following Monday. We dived at Fred's Rock and Nursery Cove the first day, Sugar Loaf and The Archway on the second day. Unfortunately, owing to the swell and storms, visibility was down in places.

Owing to the NZUA protection of reef fish and all other organisms except crayfish and pelagic fish species (which doesn't include John Dory!) mass obliteration of the fish population was not the order of the day. In fact there was a definite lack of kingfish and snapper and few crayfish in the areas visited. However, most divers were quite happy to take photos or just 'groove around'. kw

After a shockingly early rise most of us were on the boat ie the Challenger, at 8a.m. The weather was overcast and once out of the Leigh harbour we found a fairly large swell was running, dashing all hopes of getting to the Moks. To our surprise however, Robin (the skipper) headed off for Simpsons rock. Once there it was easy to get him to go on to the Moks proper. Our first dive was on Nivaire reef. Most of us were gearing up- the rest still clung to the rails not looking very peachy. Then a school of dolphins circled us and an extrelspid few dived over the side with what they had on to have a look(Jeese it was cold). The visibility was about 50 ft and no bottom was in sight. Then 2 ominous forms shot up from nowhere and passed either side of us. Well, needless to say the mouth pieces of our snorkels were all mangled. Once we were used to the immensity of these animals and their swiftness the dive soon became a game- the dolphins copying our every move- twist for twist, somersault for somersault. They were getting closer all the time and just before we were within touching distance, they left. Well....I mean..... what do you say.....We didn't say anything but completed our first dive on the reef. On all accounts it seemed fairly barren except to Robin who caught about 30 pink Maomao in as many minutes and one of our company who had the audacity to come up with a cray!

The next dive was off Fannel Island. The water here was clearer and the dive started on a shallow reef at 10 ft and sloping to 40ft then dropping off to 95ft where sand started. This dropoff was gutted with narrow fissures and covered in kelp with a swarm of demoiselles hanging round the rim like a black cloud.

Flying down to the sand it was decided that a rece was in order. Air was expelled from our buoy-comps to make us heavy and we were off on a slow motion sprint across this sandy plane. Well, as anyone who runs on a sandy plane at 95ft knows, it uses up a little air. So when the old needle hit 500 psi- we decided it was time to split.

Back on board, after a quick head count, we were off. All of us had some good memories and one of us had some more crays.....

I don't know how he does it!

C.N.B.

1972 PHOTOCOMP

Congratulations to AUUC for retaining the Whalebone Trophy against stiff competition from Tramping club. Results were; AUUC 55 points  
AUTC 30 points  
AUGC 3 points  
(No entrants from the other outdoor clubs.)

Thanks to all those who helped to organise it and wspecial thanks to Geoff Moone the judge who also showed some fantastic colour slides of his own. (Even if they did make ours look like amateurish attempts at photography). I'm hoping that next year more members will contribute their colour slides and black and white prints so that we can win the trophy again. So start taking photos now, anything is worth photographing - on land or in the sea.

Kath.

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HEN AND CHICKS TRIP 27th-29th August.

Three members of the committee went for a diving, sailing trip in the yacht 'Derwent' over to the Hen and Chickens Islands to check the place out as we'd never been there before. The original plan was to dive around the middle Chicken Islands.

We sailed out from Whangarei and stopped at the Head for a couple of scallop dives which proved very lucrative. Then out to the Chicks for an exhilarating, cold, wet sail amidst howling Nor'Westerly squalls. Unfortunately, we only got within visibility range of the Chicks and had to turn back owing to the weather, so we returned for another scallop dive at the Heads. The large bottlenosed dolphins Tursiops accompanied us past the oil refinery and we were by this time, quite satiated from eating scallops. To end it all, we stuck fast on the Whangarei mud, missing the markers in the dark and so settled to await a 3 a.m. high tide! Thanks Tim for a great trip. No fish were caught despite your presidents valiant efforts -no bait Chris, no fish!

KW.

MATING a scientific report

If you've finished terrorizing the local fish and crayfish populations or can't find either of the two, you may find it interesting to have a look at the smaller fauna of the area.

Around June and July various blenny species are mating..... obvious incentive for close observation, The sexes, usually not distinguishable from each other, go into sexual colouration, so become sexually dimorphic.

These colours are striking in many males of different species ie the male mottled blenny goes uniformly black with blue fluorescent lines along some of its fins, while the male yellow-black blenny goes into beautifully intense colouration, the head going pitch black, sharply contrasting the bright yellow body.

Your first view of a blenny community at the moment may be that of blennies whistling all over the place, as with the advent of the breeding season, the territorial behaviour of these benthic (don't shoot) fish intensifies.

You may even find a pugnacious blenny such as the spectacled blenny Gilloblennius tripennis, will charge out at you, desperately trying to scare off the bubbling oaf messing up its chances of mating.

If you watch closely the interaction between two competing fish, you may see a sequence of events where each fish progressively raises its fins and when closely orientated they protract their opercula and hold their mouths agape. The most intense displays occur between blennies of similar sizes. So you may find a large blenny taking little notice of a small blenny's display. The large blenny, if irritated will simply chase the little intruder away.

If you're having problems identifying a mating pair, keep an eye out for a male lying on top of a female while it gently tickles her abdomen. Spawning may even occur if you wait long enough.

Mike Kingsford.

## SAVE OUR REEFS

On Thursday, 21st September, the Reef Protection Society met to discuss the likely affects of monofilament gill nets on the sub-tidal reef populations.

Brian Deacon showed a short film based on a gill net found at Great Barrier Island and the threat other such nets could pose to life on the reefs.

The problem with gill nets occurs when they have been abandoned, as they sink and become entangled around the rocky outcrops of the reef. Being of such fine mesh, fish and crayfish become entangled and die.

The pros and cons of even attempting to relate to government the harmful effects induced by gill nets were discussed. At this stage it seems unlikely that the society even has a case as there are only 5 or 6 reliable reports of abandoned gill nets on reefs. To provide some basis with which to work on, some of the AUUC members have volunteered to do fish counts in areas which have been known to be little affected by all forms of fishing. We will then assess the impact on the local population after gill netting in that area. From this further areas can be studied and long term effects monitored.

If anyone has seen any such abandoned gill nets, would they please contact me. Also, it is apparently illegal to leave unmarked nets so divers are quite within their rights to lift any such offensive objects. (Just scan the horizon beforehand for fast moving boats and shotgun fire!). Notes on gill net fishing and the last RPS meeting are included.

Kath.

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Reef Protection Society,  
c/o Mr. L.Kennedy,  
111 The Drive,  
Epsom,  
Auckland.  
September 1978.

To whom it may concern.

This note is to inform you of the newly formed Reef Protection Society. A group of concerned people recently met to discuss the gill net fishery, and its effectson the ecology of reef areas. A member of the group has already made approaches to the Minister for Fisheries, with limited results. The conclusion reached by the people at the meeting was that some pressure must be brought to bear on Government to try to obtain legislation that will protect reef areas from the worst effects of monofilament gill net fishing. The Reef Protection Society was formed to try to bring about this pressure. Several members of the Society have already begun the campaign, and have already made good contacts with members of the press, radio and television, and obtained considerable coverage for our case. We are engaged in setting up a good deal more publicity, starting with television, and leading into radio, newspapers and magazines. At the same time, we shall be writing to Members of Parliament, setting out our case for protective legislation.

It is hoped that clubs and organisations associated with the various forms of Marine Recreation, and conservation will offer their support and allow us to use this support to bring pressure on Government.

The next meeting of the Reef Protection Society is to be held on Thursday the 21st of September at 7.30 p.m. at the University of Auckland, lecture theatre 10B. You are cordially invited to attend this meeting, or else to send a representative.

Also attached to this letter are two other sheets. One is the minutes of the last meeting, in brief, for your information. The other is an article which explains the reasons behind our wish to restrict the use of gill nets. We would like to see this article published in as many newsletters, club magazines, etc. as possible.

I look forward to seeing you at our next meeting.

Lance Kennedy.  
(Chairman)

REEF PROTECTION SOCIETY.

Minutes of the inaugural meeting, held on the 24th of August at the offices of the New Zealand Underwater Association, Courthouse Lane, Auckland.

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The meeting was opened at 8.00 p.m. by Mr. Lance Kennedy, the acting chairman. Mr. Geoffrey Darwen kindly volunteered to act as secretary, and take the minutes.

Apologies were received from Mr. D.Simpson, Mr. K.Sanford, and Mr. K.Walshe.

Mr. Brian Deacon showed the meeting an underwater film which he had made of an abandoned gill net at Great Barrier Island. The large numbers of crayfish and fish caught in the net, and now dying and decaying impressed all present. The meeting agreed to authorise Mr. Deacon to make the film into a form suitable for television showing, and to make up a print by the next meeting.

Discussion on the nature of the new organisation was then held, and nominations taken for officers of the group.

For chairman, Mr. Lance Kennedy was nominated and elected.

For scientific officer, Mr. Michael Donoghue was nominated and elected.

Owing to the limited number of people at the meeting, further positions were left unfilled. These will, hopefully, be filled at the next meeting.

Mr. Chris Battershill of the Auckland University Underwater Club offered to organise a venue for the next meeting. Site Auckland University lecture theatre 10B. Date : Thursday 21st of September. Time : 7.30 p.m.

A suitable name for the new organisation was the next subject for debate. It was finally agreed to use the Reef Protection Society as a temporary name until a better or more suitable one was suggested.

Suitable tactics to be used by the group were discussed. It was accepted that a first priority was to get as many people, clubs etc. involved as possible. Mr. Lance Kennedy agreed to write a report for distribution to such groups.

Various forms of legislation to effect the removal of gill nets off reefs were discussed. A decision on detailed policy here was deferred.

The meeting ended at about 10.00 p.m.

While it may be possible to present a case justifying the destruction of fish stocks for a good economic return, it is difficult to see how it could be possible to justify dropping nets and abandoning them to carry on removing fish when no one is ever going to harvest the catch.

The end result of gill netting on reefs has been observed by a large number of divers and amateur fishermen, i.e. no fish!

Many favourite fishing spots no longer yield good catches, and many good dive spots are now barren and lacking in reef fish.

Apart from the environmental effects of the netting, there are several other things which concern us.

The nets pose a major danger to divers. The monofilament is nearly invisible underwater, and easily blundered into. One diver swimming alongside a net caught his tank valve in the mesh. His buddy freed him. Another diver got so thoroughly entangled in the net he ran into that his buddy had to swim back to the boat to get a knife to cut him free, and enough extra air to keep them both going while the freeing took place. A third diver was caught about the face mask while snorkelling. He had to rip off his mask and snorkel to get free. Three near drownings. How many more have there been that we do not know about? How long before a real fatality occurs?

The nets occasionally are thrown up into shallow water by storms. They then become a menace to swimmers and small boats. A net was found on a shallow reef off Waiheke Island just around the corner from a popular bathing beach.

Fishermen are becoming increasingly concerned about the drop in catches on previously popular fishing spots. Fishing trips which once took parties to Great Barrier Island now go to the Mokohinaus, because they cannot get good catches in the old sites.

There may even be a health risk from the fish caught in gill nets. Fish die quickly when caught, but may not be lifted from the net for at least 12 hours. They may have deteriorated badly in the time.

Some conflict is now appearing between gill netters and other fishermen. Both cray fishermen and trawlers have suffered from the activities of gill netters. Crayfish on reefs are depleted as previously mentioned, and trawls may become entangled in the gill nets.

It would seem clear that the use of monofilament gill nets on reefs is quite undesirable on several counts. We hope that some action may be taken in the near future to limit this type of fishing.

## GILL NETS ON REEFS - A REPORT.

Over the last two years, an increasingly large number of commercial fishermen have been turning to the use of monofilament gill nets, and setting them on reefs. This form of fishing is now widespread and frequent, but is most common on the North East coast of the North Island, from East Cape to Whangarei. It is slowly spreading further afield, however. There would appear to be at least 200 fishermen at present fishing reefs with gill nets.

It has become very apparent that this is causing a series of major problems. The main harmful result is environmental. The gill nets are, unfortunately very effectively removing large numbers of both reef fish species and crayfish. Many of the nets are being lost, and stay in place on the sea bed for years, continuing to catch and kill both fish and crayfish.

Unfortunately, the reef fish stocks are highly vulnerable to this form of exploitation. They are slow to grow, long lived and not very mobile. This means that a reef that is heavily worked with these nets is likely to take a very long time to recover. If a net is left on the reef in the fishing position, it becomes a "ghost net", and carries on fishing for at least two years or more.

Such ghost nets are not uncommon. We have heard of, or come across several. For example, a 500 metre net in good condition with at least 100 dead and decaying fish, plus at least 16 crayfish was hauled up with the anchor of a charter boat. Another net at Tiri Island contained numerous reef fish, crayfish and sea birds, including penguins. A third at Moturoa Island contained mostly dead snapper and crayfish. A fourth, which we know very well at Great Barrier Island, contained dozens of crayfish and dead fish. We have dived on this net several times, and even made an underwater film of the net.



## THE MAUI OIL RIG

The Maui A. gas production platform is situated in 354' of water, 21 miles off the Taranaki coast. It rises approximately 250' above sea level, has accommodation for about 80 men and encompasses an area at the surface of around 200 x 100 '(20,000ft<sup>2</sup>), tapering out to nearly double that at the sea bottom.

The platform sits on four main legs, 22' in diameter which are sunk 20' into the sea bed, with each leg having 6 surrounding skirt poles sunken a further 20'. This makes it a very stable structure, in fact it is designed to withstand earthquakes, 80' high waves, hurricane force winds etc.

Diving on the platform is carried out from a specially designed diving tender, the "Pacific Installer" which is a 200' long dynamically positioned (computer controlled) ship. It has facilities aboard for both mixed gas (90/10 HeO<sub>2</sub>), saturation diving using a bell and for shallower work (to 165') surface supply, air diving, SCUBA being illegal offshore due mainly to lack of communication with the divers.

The saturation diving, although being immensely expensive, allows divers to remain underwater at great depths, for prolonged periods of time without the problems of decompression and nitrogen narcosis thus allowing much more work to be completed than would be done if ~~hour~~ diving were used.

The saturation system on the "Pacific Installer", which replaces the huge "Blue Whale" used for the last 2 years, consists of two deck decompression chambers (DDCs) and one two-man bell that descends through a moon-pool in the center of the vessel.

Four divers are "saturated" at once, two teams of two, each team working a 12 hour shift, midday and midnight being the dangerous times. One pair at a time goes down in the bell which has an internal pressure (as do the DDC's) equal to that of the working

depth and contains a mixture of 90/10 HeO<sub>2</sub> (as do the DDC's). Thus as the divers live for a month at a time in the DDC's with their daily excursions in the bell, there is only need for one massive decompression (Approx. 61 hours) at the end of the month.

When the pair reaches the working depth, say 350', one diver puts on his helmet (a KMB 10) and swims out to the job on the end of an 80' umbilical which contains his two separate gas supplies plus communication. The other diver stays inside the bell, fully geared up, except for helmet, to tend the first diver's gauges, hoses etc. After 6 hours on the job the first diver returns and they change over with the second diver going out for 6 hours while the first mans his hoses etc. Thus, after 12 hours underwater they return to the surface and their nice, dry, (cold) DDC, and the other pair go down and so it goes on for a month at a time until another 4 goes in.

Surface supply diving uses the same sort of equipment (no bell of course) but breathe air. No water stops (in water decompression) are carried out, all divers coming straight up and straight into one of the two smaller decompression chambers on deck thus their helmets can be used by someone else.

There are two air stations on the "Installer", each has only one diver down at a time, the other diver is 'standby' all geared up (except for helmet) ready to jump in and pull the other out should he get into trouble. All dives are supervised from a control panel where air supply, communications, welding gear etc are all controlled from.

To aid the underwater inspection of the platform, also in the supervision of divers, the "Pacific Installer" is installed with a Remote Controlled Vehicle (RCV) a two foot diameter orange ball with 4 propellers (each with separate electric motors) plus one "eye" consisting of a close circuit tow light T.V. camera, from which video-tapes are made. This vehicle is controlled via a T.V. screen

and helicopter like control panel and "joy stick" from the surface. At \$800,000 it is very expensive, although essential and has aided considerably in my work, which brings me to the part I play in all this.

I am told that I'm the "on board marine biologist" for Shell BP & Todd, my job (which coincidentally is also my Masters thesis) consists of surveying the marine growth of the Maui A platform, a rather immense task considering the 400,000 sq. ft of steel involved. I am ~~at present~~ setting up growth experiments (using quadrats) on the submerged parts of the structure to be monitored (both by diving and RCV) over the next year, in an attempt to give SBPT an indication of the growth rates of the various fouling species involved and thus an indication of how often cleaning will need to be carried out - an immensely expensive programme of water blasting.

I will be spending all summer offshore, as I did last year and then shorter periods for the rest of the year (1-2 weeks / month) finishing hopefully around next August, so think of me, offshore inside a steel canister while you're lounging on the beach in the sun, with a cool beer, a lovely woman beside you, this summer.

Steve Crow S.O.

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## THIS SUMMER

Probably from Boxing day on to about the 11th or 12th of January there will be the first camp. This is being held at Bland Bay, 30 miles north of Whangarei.

Bland Bay is an ideal dive area boasting much rugged coastline. The water is clear and the fish life is abundant. Calm days will see us a Danger Rock in the mornings where the water is over 100 ft. However, there are plenty of more shallow, sheltered spots also, and it seems several night dives are a must.

A mobile shop comes daily and there is plenty of freshwater. The area is enough to blow a divers mind and Bland Bay in itself will blow anyones mind. There will be much more info on this on the notice board in the coming few weeks.

Immediately after this a few individuals are heading for Spirits Bay in the far north. They will pick up the boat and most of the tents from us on their way north. This is from approximately 15th to the 30th January. Brett Furlonger may be the one to ask about this.

Immediately after this, our present gear officer Brian Michie will be off for further diving and would perhaps appreciate a bit more company.

This summer is going to be just great, so be in to win.

I almost forgot to mention that it seems very likely there will be an after finals one week camp, but I don't know where just yet. Gliding to the bottom of the cool sea seems to be a good way to relieve built up pressures.

Trips, Mark Killip.

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## DIVE FIJI

During the recent August vacation a party of zoologists including some members of the AUUC flew to Fiji specifically to study coral reefs and mangroves under the tender care of Prof Merton. The swamps were dark and damp and not much good for clearwater diving. It was on the reef front and in the lagoon behind that the most spectacular sights were to be found. When looking at a coral reef it is convenient to think of it as a horizontal extension of what the biologists among us know as the sublittoral fringe. In NZ it is that part of the rocky shore just exposed at the lowest tide with a characteristic covering of fucoids and Ecklonia. In the reefs around Fiji this sublittoral fringe extends many hundreds of meters seawards until it drops off at the reef front.

The richness and diversity of life here is staggering. In the shallow lagoon one of the most unusual sights are the gardens of huge soft corals with their associated brilliantly coloured fish fauna. There is no space without a splash of colour. Common are staghorn corals, fish such as Pomacentrids (Demoiselles), Balistids (Triggerfish), Chaetodonts (Angelfish), Labrids (parrotfish) and the incredible Holothurians including one which keeps a fish up its rectum! Many of the best sights can be seen in the top 8 meters well within snorkelling range. But of course the best dives were those on SCUBA where you can go from the rich and sunlit surface waters down to nightish-looking reef faces at 100 ft plus, with their huge Gorgonian fans, sea whips and Crinoids. The best time to dive on a reef face is on a flood tide. In an ebb tide the stirred-up water from the lagoon flows over the reef crest bringing visibility down to 50-80 ft!

It was winter when we dived there and wetsuits were not absolutely necessary but made the dive much more comfortable and enjoyable. It pays to take your own reg, fins, mask and snorkel (basic gear). SCUBA gear is readily available for hire (around Suva at least) also, take your dive certificate, they may ask to see it.

