MASWA Newsletter

(June 2000)

ATTENTION: This months MASWA meeting is Wednesday, **28th June**. Check your calendar, because it could be the day you receive this!!!

This Month's Meeting

The meeting will be held at Tony "DIY" Fiorentino's house. Tony has had several meetings at his house and I think most members would be familiar with his aquarium. Its been established for quite a few years now and always seems to do pretty well. Tony's tank is built into a wall in the lounge and the sump and all equipment is in a separate room built on to the back of the house. Tony is also known as the master of DIY especially if it is to do with plastics. Members, if you are after some ideas on how to set up your marine system or want ideas on how to keep your aquarium healthy over the long term, this is one of the tanks to check out! The address is 13 Andrews Court, Padbury. The meeting will begin at 7.30pm.

Last Month's Meeting

May's MASWA meeting was held at Sid Harrison's house in North Beach. The weather was fairly wild that night and after parking my car and walking to Sid's house, I could hear the waves crashing on the beach. Nothing like the sound of crashing waves to make you think you are really at a marine hobbyists house! The tank's dimensions were 2m x 450mm(W) x 750mm(H). The tank was fairly new (Sid said he removed around half a litre of crabs from the rock when he first set up the tank), but apart from some diatom growth on the sand, the tank was pretty clean. The tank is lit by 4 fluoros, 2 are Coralsatars and 2 are Aquastars. The sump and protein skimmer are in Sid's garage and the piping goes through the brickwork from the kitchen. The tank was viewable from both sides, with the main viewing area being from the kitchen/dining room, but the tank was also viewable through two archways from the loungeroom. A very nice setup! Sid had dispensed with the rock "wall" idea and instead, had three pillars of rock (from Jurien Bay) with most of the organisms hanging out around them. Just about all the animals in the tank Sid had collected himself. Inhabitants of the tank were: 6 chromis, 2 convict tangs, a western butterfly, speckled butterfly, Germain's Blenny, a black blenny, a local *Sarcophyton* sp., various *Tubastrea* colonies (both orange and green) and 3 genera of zoanthids.

Nathan Cope also gave a presentation on different books available for the hobbyist. The presentation focussed on getting the most useful hobby information for the least amount of money.

Raffle Time

Last meeting

Three main prizes were up for grabs at the May meeting; a 115mL bottle of Kent "Zoe Marine" vitamin and mineral supplement/food additive ($21.27*), a Seachem "The Bag" welded filter bag ($15.45*), a 235mL bottle of Kent "Poly.Ox" organic material oxidiser ($14.52*), a 250mL jar of Seachem "SeaGel" ultrafiltration medium ($13.32*) and 2 Vegie Clips (for holding Nori, Wakame, lettuce, etc) ($1.97ea*).

Jan took the SeaGel, Sid took the Zoe Marine, Andy took the Poly.Ox (and finally collected his Reef Plus which he won at a raffle several months ago), Darren took The Bag and Steve and Greg both won Lettuce Clips (Greg was planning on selling his lettuce clip on the black market, so hopefully he made a good profit and didn't get nabbed in the process).

This meeting

This month's prizes are a 115mL bottle of Kent "Zoe Marine" vitamin and mineral supplement/food additive ($21.27*), a 250mL bottle of Flex Geo Liquid water stabiliser and flocculent ($16.48*), a 250mL bottle of Kent Liquid Calcium ($15.35*), a 235mL bottle of Kent "Poly.Ox" organic material oxidiser ($14.52*) and 2 Vegie Clips (for holding Nori, Wakame, lettuce, etc) ($1.97ea*). A $2 raffle ticket puts you in the draw to pick one of 6 prizes with a total value of more than $70!

(* These are Reefs Downunder retail prices. Due to Reefs Downunder's low retail pricing policy, they are probably not representative of prices in most stores. All main prizes were supplied to the society at cost-price by Reefs Downunder.)

This Month's Presentation

No presentation has been formally organised for this month, but hopefully Tony will be able to take us out to his workshop and give us a run down on the basic skills necessary for building DIY equipment. If anyone else has an idea they would like to present at this month's meeting, it would be much appreciated. Please let either Nathan or David know at the start of the meeting.

Synthetic Sea Salt Experiment

By Greg "The Fish Boy" Weryk

Greg Weryk mentioned at the April meeting that he had had bad luck with Red Sea Fish pHarm Salt and that he would no longer use it and was now using Coralife salt. Nathan Cope expressed a similar experience and was now exclusively using Instant Ocean. Subsequently, Greg has had the opportunity to set up an informal experiment to test Red Sea versus Coralife.

One of my regular customers has not been able to successfully keep *Sarcophyton* sp (Leather corals) in his tank for any length of time. We have been trying to figure out what the problem is for about a month now. All the customer's tests indicate his water to be superior to the aquarium water at the shop; ammonia, nitrite and nitrate are all nil, specific gravity is 1.023, phosphate is under 0.025 ppm, temperature is 25-26C, carbonate hardness is around 300ppm and calcium is approximately 380ppm. The tank is lit by a single 250W 6500 K metal halide and twin actinic fluorescent tubes. Now, we have had a *Sarcophyton* specimen in the shop that is doing perfectly. It is a little baby one about an inch in size when fully open and thriving in our "green hair algae" tank. The water in that tank is not bad but not what you'd call great, either. This tank is running fluorescent 10000k lights.

We sold a *Sarcophyton* to the customer but within three days it was closed and within a week it was shriveled up and appeared close to death. I asked the customer to bring it back and after four days in our tanks, it had begun to open it's polyps again. Consequently, we are now trying water changes using Coralife synthetic salt instead of the Red Sea salt that was previously being used. So far, we have done four water changes and plan on another eight changes before making a verdict.

I thought I would mention this as when we (if we) discover anything, it may prove to be interesting to the club as a whole, as it would be nice to have a good comparison in a real life situation between two reputedly high quality salts. It is by no means a stringent scientific experiment, but we are doing our best to avoid altering any other parameters except the salt.

Diving at Jurien Bay

By Sid Harrison

I said to Nathan some weeks back that I had been diving at Jurien Bay for the last fifteen years. Later I thought about it and realised it's at least twenty five years. No wonder so much has changed!

It all began when a mate of mine was transferred to Cervantes. I would drive up there every couple of weeks and we would go drinking, spear-fishing and drinking (what we do to our bodies in the name of fun!) A short time later, he married and was transferred to Jurien Bay. Again, every couple of weeks, I traveled to Jurien to go spear-fishing (see what marriage does?!). We would go out deep chasing jewfish, blue grouper and baldies. Being an independent sort of bloke, it wasn't long before I bought a house up there which was fortunate, for a short while later, my mate and his wife were transferred further afield.

Spear-fishing continued, either alone or sometimes with other mates, but the slaughter of large fish began to lose its appeal. Around that time, there were numerous fishing competitions held at Jurien and with ten or twelve boats, each bringing in fifteen to twenty jewfish, it wasn't long before stocks were depleted. So, getting up early and slogging out five or six miles for a couple of hours of diving, with little to show for the effort, became somewhat of a chore.

My declining appeal of spear-fishing was enhanced by an incident, when diving alone, where I ascended to realise I had no idea where my boat was. In those days, buoyancy compensators were not available. Buoyancy vests were, but I didn't have one. There was a huge desire to panic, but

fortunately, I made the decision to descend and attempt to recognise underwater features which would lead me back to my boat. Needless to say, I was successful and when I returned to Perth, I bought a buoyancy vest, which I have never worn.

With time, my attention turned to the open ocean and the reef structures around the islands. I had set up a marine aquarium so my interest had shifted to collecting various fish and I became aware of the fascinating world of things you cannot spear. This fascination extended itself into photography with all its frustrations, but still, it was another catalyst which focussed my attention on events and creatures I would normally not notice.

Most of my diving is now done in an area I call the "Blue Hole", which varies in depth from knee deep to twenty five feet. It has caves, overhangs and bombies and is relatively protected by an outer reef. This protection allows the existence of a multitude of small fish species. The area is an ideal nursery resulting, at certain times, in the reef being a mass of juvenile blue-yellow damsels and the likes.

Over the years, these reef inhabitants have changed. From time to time, various fish species wax and wane. Some years back, I discovered a small school of juvenile Convict Tangs (Ancanthurus triostegus), the first time I had seen the species in this area. On my most recent dive, I noticed they had colonised most of the reef. There was also a substantial school of adult fish. I also noticed a new species in Chaetodon citrinellus (Speckled Butterflyfish). It will be interesting to see if they survive the winter.

Having embarked upon establishing a "reef tank" aquarium, I have become more aware of corals. I am now noticing the abundance of varieties and extent of coral colonisation in the area. Sometime down the track, I may even be able to identify some of them.

I remember when I first dived in the area, a particular plate coral which was the size of a dinner plate. That individual coral colony is now the size of a table! Hence, greater care is needed in many areas to prevent damage to these larger and older corals. Fortunately, the area is not frequented by many people, since it is only accessible by boat and even then, can be quite difficult to negotiate.

Currently, there is a proposal to include the area in a marine reserve and rumour of a tourist resort being built nearby. Being a marine reserve will offer a greater degree of protection to the area, but we can only hope that an increase in tourist diving activity does not cause substantial damage to the corals.

If you are tempted to dive at Jurien Bay, you will enjoy yourself, but if you plan on doing some serious diving, a boat is definitely a pre-requisite. There is a reef at Middle Head, just north of the town, which is accessible from the beach, though. There are also a number of reefs towards and at North Head, which are close to the shore, but which support fairly serious swells most of the time. And remember, there is a seriously large, seriously hungry white pointer up there somewhere.

By the way, if you find my stash of live rock while diving in Jurien, remember, it's mine, so leave it alone - I know it's there somewhere, it's just temporarily misplaced.

Pocillopora – The Marine Guineapig! Part I
By David Bloch

The family of corals known as Pocilloporidae is comprised of five coral genera. These include Pocillopora, Seriatopora, Stylophora, Palauastrea and Madracis. The first three genera all share similar biological characteristics while the latter two are quite different in most respects. In this series of articles I will be discussing the natural history of the coral genus Pocillopora and my experiences keeping and captive care of the coral, Pocillopora damicornis.

Natural History

The genus Pocillopora contains thirty five nominal species, seven to ten true species, five of which are Australian. All the corals of the genera Pocillopora are all easily identified by common characteristics that they all share. One such characteristic is the presence of wart like structures known as verrucae that cover the outer surfaces of all areas of the coral colony. Another characteristic is the polymorphic nature of the genus. This means that individual species have more than one form or shape. The reasons for this are primarily related to environmental and geographic conditions. This difference in growth form can be so significant that individuals of different Pocillopora species growing in one area

can look more like each other than the same species growing in another location. An example of this is that Pocillopora's growing on the wave exposed reef edge will adopt a stunted heavy growth form where those from lagoons or deeper reefs will have a much lighter and open growth form.

Unlike most other corals that have to go through the spawning and sexual reproduction process to produce planula larvae. Corals of the genus Pocillopora have developed the ability to asexually produce planula larvae. This asexual production of planula enables this coral to reproduce all year round. During periods of sexual reproduction they also have internal fertilisation rather than releasing gametes into the water. This is made possible by the hermaphroditic nature of the mature colonies. Partly due to their varied ways of reproduction, Pocillopora's are very widespread and common. In fact this is the very reason why they are known as the "Guinea Pigs" of the coral world.

History of Captive Coral

I have kept the coral Pocillopora damicornis since mid 1995 when I was given an almost dead specimen from a colleague at Curtin University who was going overseas. This specimen had a diameter of around 8cm and had only about 40% living coral tissue coverage on the skeleton. This coral had only been in an aquarium for a few weeks and was being eaten by a butterflyfish when it was given to me. The aquarium I put this coral into was 4ft(L) X 2ft(W) X 2ft(H) in size and was lit by ten (yes ten!) fluorescent tubes. The tank was setup with live rock atop a bare bottom and a counter current protein skimmer in a sump. Under these conditions all the corals I kept did well although I constantly had to prune the various species of Caulerpa from overgrowing the corals! I kept the new Pocillopora damicornis in this tank for about six months and during this time it regrew over the dead areas of skeleton and developed a very faint pink tinge to its overall brown colour. It however did not seem to grow any larger in size. At this point (January/February 1996) the tank was moved and the lighting upgraded to a single 400 watt 6000 Kelvin metal halide light. More live rock as well as live sand was added and under these new conditions this coral took off!

After around six month's in the newly moved tank the coral had turned a very pink colour and had almost doubled its size. At this point I also started finding small Pocillopora colonies growing on the glass, powerheads and rocks. The coral continued to grow really well over the next two years and was constantly producing asexual planula until November 98 when the tank crashed because of a sea cucumber "toxing" out the tank after it was minced by a powered. The coral had reached almost 30cm diameter by this time. At the time of the crash I was already in the process of setting up my new tank which was 4ft(L) X 2½ft(W) X 2ft(H) and was almost ready to move the corals over to the new tank (Doh!). After the crash at least half the Pocillopora damicornis colony had died. I managed to fragment the coral and save two (5cm diameter) pieces and made up two more small colonies by epoxying all the small fragments together onto two rocks.

Today (June 2000) the various remaining pieces of my original Pocillopora damicornis collectively have grown to a size that is around 1½ times larger than the coral colony was when it was nearly killed when my tank crashed in 1998! I also have small coral colonies around 2cm in size that have grown from settled planula. The fragments that I epoxied together all grew together such that they are complete coral colonies!

Upcoming Meetings

June 28th:	Tony Fiorentino 13 Andrews Court Padbury Ph: 9401 4319
July 26th:	Frank Krause
August 30th:	David Bloch
September 27th:	**?????**

MASWA's World Wide Web address
http://www.wantree.com.au/~conquest/andy/maswa/

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to Nathan Cope E-mail address: copen@one.net.au
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MASWA Membership
Currently MASWA requests an annual $20 donation from members, $10 for Junior members. This covers the cost of newsletters, drinks, nibbles and other costs associated with the society. Members will receive information sheets and discounts on some products.

Friends in Common
Jan Anderson, David Bloch, Darren & Raqual Collins, Nathan Cope, Andy Dolphin, Tony Fiorentino, Achille Gaglia, Paul Groves, Sid Harrison, Sean Hooper, Frank & Ben Krause, Grant Magill, Phil Searle, Steve Tofts, Greg Weryk.
If you've paid your money and your name is not on this list, tell David! Members on the web should check they are on the web site members list.

If there is anything you would like to know more about or anything you would like to add to the newsletter, call or send comments to the current editor, Nathan Cope. Remember, this is your newsletter.

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