



PLEASE NAME ME!

February 2003

Editorial....

Welcome to the second issue of our new MASWA newsletter. The first issue had a few hiccups – wrong and forgotten dates plus a few other small errors but hey, we are all human. This new newsletter format is like a living reef tank. It will be constantly evolving and changing and hopefully after all the changes will be something better! To help me improve our newsletter please give me some feedback. Tell me what you like and don't like and make suggestions to improve it. If you are a cartoonist or have a good sense of humour how about a few jokes? We are open to anything!

David Bloch

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Upcoming Monthly Meetings....

February 26th

*Terry and Valerie Peake
37 Bridgewater Drive
Kallaroo*

March 26th

Marc Quaid

April 30th

Elmer Ellison

May 28th

Phillipe Dor

June 25th

?

Meetings start promptly at 7.30pm!

The Marine Aquarists Society of WA is a name that we, as a group of friends with like interests have applied to ourselves for the purpose of information exchange. No one person, nor the group as a whole, can be held responsible for liabilities, injuries or other that may result either directly or indirectly as a result of our gatherings or the information exchange therein. The same applies to the information contained in this newsletter.

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Membership Payments

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Paul Taylor (MASWA Treasurer)

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Newsletter Contributions

If you would like to make a contribution to the newsletter please don't hesitate to contact the Newsletter Editor, David Bloch on the phone number or email address listed above. Contributions to the newsletter need to be received no later than 7 days prior to the next meeting date. Don't be shy – I don't care if you can't spell or use a computer. Hand written transcripts are fine!

AQUARIUM ANTICS

I get a syringe with a wide bore as this gets inside the *Aiptasia* with smaller amounts of kalkwasser. The pharmacist tells me I need a small bore for injecting. I try to tell them it's not for me! I now say it's for filling up toner cartridges on a laser printer, as I couldn't be bothered explaining it. Don't mention *Aiptasia*, they try to sell you skin cream for a rash. Go figure! Oh yeah.. fill the syringe with Kalkwasser and jab em quick." Don't worry, I'm pretty sure the last sentence is aimed at *Aiptasia*, not chemists.

January Meeting Rundown....

For a cool and windy night we had quite a good turnout for our AGM meeting. One member in particular was so keen to come that he caught the train all the way from Armidale to Currabine – an hour and a half long trip!

David's tank was looking pretty good considering that it had only been setup for just a tad over four months. Some of the corals in his tank were frags from specimens dating back as far back as 9 years ago! Unlike Dave's previous tank which was dominated by staghorns, this tank had a mixture of both soft and hard corals. One soft coral in particular, a *Xenia* sp. frag that he obtained from Jan at the October meeting had more than trebled its size in three months.

This tank was a good example of what can be achieved in a very short period of time on a relatively small scale. The tank measures a measly 61 cm³ holding around 200L. Filtration is achieved via a bed of live sand, a reef of live rock and a down draft protein skimmer. The lighting consists of a 250 watt 6000 kelvin GE metal halide lamp and two 18 watt Philips TLD blue fluorescent lamps. Water circulation within this little tank equates to around 3500 L/hour at any one time.

This is achieved via three 1500 L/hour powerheads, one of which is constantly running and two which are on a wavemaker and a flow of 500 L/hour coming from the sump. To cope with the high calcium demand a calcium reactor is employed to keep the levels at the appropriate values.

As usual a raffle was held and it was fantastic to see some excess coral specimens donated to the raffle by Tony. We always like to encourage donation to the raffle and trading of coral frags.

Our AGM was covertly held and it was left up to everyone to nominate themselves or others to be on the 2003 committee. No multiple nominations came to be so all nominated persons were accepted to the new 2003 committee. A full rundown of the AGM can be found in the presidents report later in the newsletter.

February Meeting Information....

This month we will be attending the home of Terry and Valerie Peake. The Peake's had quite a few tanks and an outdoor saltwater pond at the last meeting hosted by them in February last year. They have scaled down their setup a little since then but have improved the quality of there existing tanks!

Our new water test kits have arrived so if anyone wants to get some water tests performed then bring along a sample of your water and let us scrutinize it for you!!!!

Some time ago at a meeting at Tony's place Terry got quite exited at the site of Tony's home made fish food. So exited by this was Terry that he vowed to make it his mission in life to spread the knowledge so that other members could also produce their own fish food!

This month we will all be lucky enough to see a demonstration of Terry's fish food making abilities and may even get to take home a sample, ooh!

The address for the meeting is **37 Bridgewater Drive, Kallaroo** and starts promptly at **7.30pm**.

MASA UPDATE....

By David Macnamara

I'm pleased to report that finally we have tangible results which are as a direct result of the hard work

put in by all of the MASA committee members in 2002. Many of you will have seen and indeed be using the newly launched MASA website including the upgraded version of RTAW (the website for Reefing the Australian Way). Perhaps more exciting than the RTAW upgrade is the launch of the registries.

I have high hopes that the registries will form an extremely useful information resource for hobbyists as more and more people add information into them. For those of you that have not seen them yet the registries have a number of sections and purposes. The first is to provide generic information about a certain item (eg a book, a business or livestock). The second is the ability for you to add an item to your personal registry to both assist with your record keeping and to be consolidated to provide summary information in addition to the generic information for an item. At the time of writing the first version of the business, livestock, books & aquarium registries are available. More functionality will be added to these as well as new registries covering things like equipment, additives, maintenance schedules and more. If you haven't already, I would encourage you to have a look at the registry section of the website and enter your details.

Check out the MASA website and register today!



It's FREE!

The advertising trial that we were conducting on the MASA website concluded in January. Most of the businesses that participated in the trial have decided to continue on and there has been some interest from new businesses. The revenue raised from advertising forms the bulk of MASA's income and is therefore an important component of being able to provide the benefits to our members. I would encourage you to support those businesses that help support us and should you shop with them to let them know that you saw their ad on the MASA website. In addition if there are any businesses that you know of that you think may be

interested in advertising with MASA, please ask them to contact a MASA representative to discuss.

On the society front, MASQ (the newly formed Marine Aquarium Society of Queensland) is taking the big step of introducing membership fees at their upcoming meeting. I'd like to take the opportunity to wish them well with this big step in the life of their society.

Until next time,

David Macnamara
MASA President

Presidents Report: A Retrospective of 2003....

By Nathan Cope

MASWA started 2002 with the January meeting being hosted at Fremantle Ocean Farm. Here we discovered that FOF were trying something new and attempting to breed seahorses. At this meeting, we also nominated our new MASWA committee. Along the lines of trying something new, we added two new positions to the committee; Web Editor and Science Officer. These positions were filled by Terry Peake and Paul Groves, respectively. MASWA's two inaugural representatives for the Committee of the Marine Aquarium Societies of Australia (MASA) were also selected; Wayne Mothershaw and myself.

Terry Peake, as MASWA Web Editor, quickly took hold of his new role by the horns and produced a fantastic new MASWA web page to take over from our old, ailing and practically homeless MASWA web page. The result has been very useful and colourful. Thanks to Terry, we finally saw the MASWA Newsletters up-to-date and online and eventually realised a long-time ambition of photos of MASWA hosts' aquariums being displayed online, too.

During 2002, the MASWA Committee had their work cut out for them as the temporary ban on recreational collection of live rock and coral was still in place and we had only just attempted communicating with the Department of Fisheries. Despite the frustration and the tediously slow developments, it did seem positive right from the start, though. In our first letter received from the Minister for Fisheries, Kim Chance, he stated, "*I regard the MASWA as a well recognised and respected body, with a keen interest in the marine environment. The decision to temporarily ban the recreational take of coral was certainly not a*

reflection on the good work of the MASWA in promoting environmentally sustainable collection practices." Not long after this letter was received, two Fisheries' personnel, Eve Bunbury and Colin Chalmers, contacted us and arranged a meeting to discuss the issue. Later, Eve and Colin also came along to a MASWA meeting to see what the society was all about and further discuss the issue with members on a face-to-face basis. Finally, MASWA members were called upon to write letters to the Fisheries Department to give our views on how the issue should be resolved. To our collective credit, we have recently been informed that a large number of MASWA members put pen to paper and aired their views.

2002 also saw MASWA embark upon a programme to make as many WA marine hobbyists as possible aware of our society. We did this by creating flyers that would be made available at all marine aquarium stores. This programme has been an overwhelming success and as a direct result of it, 2002 had a record number of members subscribed.

The year ended with our annual Christmas meeting where we had our traditional sausage sizzle. At this final meeting for 2002 we gave away some great door prizes, presented some appreciation gifts going to three MASWA members who really stood out due to the amount of work they do to keep the society moving in a positive direction and finally, awarded MASWA's first trophies.

Financially, MASWA did very well last year under the watchful eye of our Treasurer, Paul Tayler. We started off the year with \$582.90 and while still doing all the things we'd planned to do, we finished the year with an even large pool of funds totalling \$797.30.

So, what *do* we have in stall for you in 2003?

- This year, Terry will be slowly transferring the contents of the MASWA web site over to the MASA site. MASA has offered to host for free all Australian marine societies web sites. The new MASWA site will still appear to be separate from all other societies, but will be incorporated within the one MASA web site. So, not only will it have all the old content, but many new and useful features that just wouldn't have been available if we had had to provide it all on our own.

- While there is still no resolution to the live rock and coral collection ban, it appears that a resolution is not far off. We were reliably informed by Eve Bunbury last month that thanks to the efforts of MASWA members, new legislation will be

tabled soon and by all accounts, the result will be one that is quite acceptable to us.

- We are working towards a more interesting newsletter. David Bloch has already made a big impact by changing the format of it... I think you'll agree that it looks fantastic. Also, a competition is being held to give a name to our newsletter.

- Now that we have a nice buffer of funds available, some ideas that were previously considered unviable are now possible. To begin with, MASWA has purchased a number of test kits that will be made available for members to test various parameters of their aquarium water when they come to meetings. Some other issues requiring funding that have been tabled for committee discussion already are:

- MASWA subsidising the cost of an evening restaurant outing for all society members,
- Increased quantity of food and drink at meetings,
- A MASWA coral propagation tank where suitable corals donated by members can be fragmented and distributed amongst other members.

That concludes my report for 2002. I wish you great success with your hobby in 2003 and look forward to catching up with you all at this year's meetings.

Nathan Cope
President

Memoirs of a Clam Farmer....

By Phillippe Dor

It all happened on Fitzroy Island near Cairns (Australia) from 88 to 91. Reefarm was the first commercial giant clam farm in the world and at that time only 2 research projects existed, one in Palau (J.Heslinga) and the other on Orpheus island by J.Cook University (J.Lucas, R.Braley & J.Barker).

I was appointed hatchery manager in Feb 88 (at the end of that year's breeding season) after arriving from Singapore where I had managed edible oysters and mussels farms.

Reefarm hardware was quite impressive: 4 deep raceways 20 yards long, 6' wide and 4' deep and one shallow raceway same length, 16' wide and 1 1/2' deep, plus a 30,000 gal seawater storage tank that was filled 3 times a day.

Farming techniques before my arrival were based on similar extensive methods used in Palau and results were extremely unreliable and poor. Only J.Cook was using intensive techniques and their results still could not pass the 100,000 units because of the very difficult methods used.

The low-tech method was spawning in very large raceways, feeding larvae with algal cultures for about 10 days, and then hoping for the best until juveniles were visible to the naked eye 4-5 months later. My boss (a Cairns dentist) called it the "mystery phase".

My initial reaction was that this method was totally unacceptable for a commercial operation was too unreliable and inefficient. Besides that, the species farmed so far *T. gigas* and *T. derasa* had only a very limited market in Taiwan, when *T. crocea* showed almost unlimited market potential on the Japanese seafood market.

First I started to divide each raceway into 3 compartments to increase the number of possible spawning experiments and then I started collecting local *crocea* brood stock and my first (spontaneous) spawning was from 6 *croceas* in Oct 88.

Croceas can have between 20 and 30 million eggs each, so I started feeding the larvae at day 2 till day 11 and at day 12 most larvae had settled and bottom samples revealed "millions" of crawling tiny (about 120 micron) juveniles. Super result I thought!!!

After settling and a 95% water change I started running unfiltered seawater into the raceway at a rate of 3 times total volume per day, and everything seemed fine.

Less than a week later green filamentous algae appeared and was growing about 1000 times faster than the juvenile clams, and only 2 weeks after settling the now 1" hairy algae was starting to suffocate the juveniles still only about 150 microns.

At that rate everything would be lost within days, no "mystery" about that, so I took an impulsive and drastic (but logic) measure and scooped up everything from the bottom with a plastic dustpan and put the whole hairy mess through a mosquito mesh under water sieve.

Not surprisingly the hairy algae was very easily separated from the tiny juveniles which were thrown back into the raceway, and again bottom sampling revealed insignificant mortality, so this operation was repeated every 2 weeks for about 3 months.

Later Seahares (slugs) had appeared and taken over the removing of the hairy algae.

At 5 months the result of this new “experimental” method was a carpet of 1.6 million juvenile *croceas*, 4 - 5mm in size, and my boss was already making big plans for next year.

Unfortunately, soon after some regular daily mortality started, J.Cook Uni was called in but could not help, and mortality kept going severely for another 2 months till I finally convinced my boss to install an aeration system and to run it during the night as well and the problem was solved.

The final result was 1.4 million lost juveniles from one spawning alone. But luckily other spawnings had filled the other raceways in the meantime.

The next breeding season my boss became greedy and wanted us to experiment also on fish, prawns post larvae and pearl oysters, and all that without increasing the hardware or even putting the yearlings at sea, and to top it all, by putting us on part-time shifts. (the handyman/mechanic, my new young assistant, and myself).

I did not want to play “Superman” and resigned early Dec, middle of breeding season, and about 2 weeks later the hatchery was almost totally devastated by a category 4 Typhoon called “Joy” on Christmas day 1990.

Only the yearlings in the shallow raceway survived and these were sold on the German aquarium market two and three years later. J. Barker from the J.Cook project took over my position but never managed to produce much as he switched over to intensive methods, and Reefarm was finally sold in 1997 for prawn post larval production.

During my brief stay at Reefarm I did not pass on my “innovative” and very successful farming technique to anyone else but once to J Barker, he judged it too “crude” and never used it again, and if the prices of clams on the U.S. market are any indication, nobody else did.

These prices are quite amazing as we had calculated that for the huge 500 million clams/year potential Japanese seafood market we could (with the right investment and location) have produced *croceas* at 25 cents each/year!

After my last aquaculture job I became aquarium lease & maintenance provider, did some limited coral collecting and later coral farming but gave this up when it became obvious I could not get an export permit (red tape and bureaucrats) and the local market is not viable because still relying on natural collecting.

Now retired, I'm trying to launch a new aquarium system I patented combining my aquaculture and aquarium experiences for super reliability and efficiency with minimum complexity:

Husbandry and farming tips:

Before aeration was installed we were also losing the adult clams used as zooxanthella donors after day 12 of each larval cycle (mass larval mortality period), and this confirms my belief that adult clams are extremely sensitive to lower oxygen levels, this would explain sudden and unexpected death of healthy looking clams. In tanks they should get well circulated water directly targeted at them.

Other problems encountered with wild stock was pyramedellid (2-3mm white) snails hiding near the byssus or in the clam's flutes, these can kill adults clams and affected clams show signs of disease by not opening fully during day-time.

Wild collected *crocea* brood stock could not be used subsequent years because of parasitic gonad infection after spawning, and clams with damaged byssus (not attached to rock any more) were needing special protection from predators (worms, fish etc).

Farmed *croceas* had problems reattaching once they reached 3cm (about 1 ½ years) as it takes much energy to make new byssus threads for a small clam.

The lesson for hobbyists is never to buy clams not attached to rocks, these could be wild collected and not really farmed, as serious farms should sell *croceas* at least half incrusted into rock, *maximas* and *squamosas* well attached onto rocks.

The byssus of a clam protects it from currents and waves but also act as a “plug” to prevent predators to eat it from the inside out.

Farming in itself is easy if you know what to do: first the brood stock must be over 10 years old (10 - 15cm), then properly conditioned over a period of 6 months in very stable and very gradually increasing temperatures. (this is the most difficult part if not at sea).

Once biopsy confirms the clams are “ripe”, a 2 -3C temp shock combined with small salinity shock will trigger the spawning. Use only 2 -3 clams per spawning, place them in a black coloured plastic 10-15gal bin.

The sperm always comes first and looks like smoke, let them give 2-3 puffs only then remove to second bin until they start blowing eggs (look like fine granular sugar) use

magnifying glass, then put back in first bin with other egg blowing stock. No need to add sperm water to avoid polyspermy.

After about 20-30 min of egg blowing pour content of bin into 1000 gal well aerated tub, start feeding larvae at day 3 up to day 10 with algal cultures high in omega 6.

At day 9 spread a very fine layer of fine sand into your tub. When most larvae have settled (day 12) do a 95% water change and hang 2-3 adult clams for zooxanthella transfer.

In closed conditions you would need a good filter system to keep water clear and good lighting system, and juveniles should be "fed" with fertiliser once a week. After that just watch the filamentous algae and sieve them out every two weeks.

At 5 months *croceas* and *maximas* should be 4 - 6mm in length, at one year the biggest will be about 2,5cm and the smallest about 1cm.

At this time they should be placed individually in/on their own rock, and fil-algae control can be done with turbo snails, sea-hares, abalones or *trochus* shells.

Statistics: 5% are super fast growers, 10% fast growers, 70% average growers, 10% slow growers and 5% super slow growers. In *croceas* 98% are normal blue, and only 2% are special colours, unless selective breeding?

Conclusion:

For any hobbyist which would be dreaming about producing clams in his small set-up, unfortunately this is not possible, not because of the difficulty which is not really much, but more because of the infrastructure and amount of water involved.

But clams are certainly not the "sacred cows" close to extinction some make you believe they are, here in Australia all species are still quite common over the full length of the Barrier Reef (or about 1000 miles) and on Orpheus island's fringing reef *croceas* are so plentiful that you can not put your foot down without standing on one or two.

The high prices asked for clams can be justified for *croceas* by the rarity of the special colours in demand (only about 2% of production), but the interesting question is what is happening to the other 98% common coloured *croceas*???

Also, many clams are still sold without being attached to any substrate and this shows a complete lack of understanding by the farm and/or dealer, because these clams are doomed almost

for sure if they are *croceas*, *maximas* or *squamosas*.

Only *H. hipopus*, *gigas* and *derasa* lose their attachment and can live long without it (50 to over 100 years). Once the byssus of these species is lost the opening is closed by new shell formation, and their shear size and weight keeps them put.

Clams are ordinary bivalves, generally very hardy and very long living as long as they have the right conditions, and it's up to the hobbyists to make sure his clams are getting what they need: clean water and shelter, protection from predators and food.

I'm sure all hobbyists do their best for their clams, but the husbandry of clams in aquariums still seems to have a long way to go before losses can be reduced to a bare minimum

Phillipe Dor, Armadale, WA
pdor@bigpond.net.au

MASWA Message Board....

Newsletter Naming Competition

With the launch of the new format MASWA newsletter we would like to give the newsletter its own identity - a name. We are holding a competition to see who comes up with the best suggestion for a name. The winner will have the choice of a free 1 year subscription to MASWA or an aquarium shop voucher to the value of \$24. The winner will be decided by the committee and announced at the March general meeting.

Glass Cleaning Survey

At the last meeting President Cope mentioned that we were going to conduct a survey on aquarium glass cleaning. Some of the things that we would like to know is the frequency that your glass is cleaned, how long it takes to get dirty, what is used to clean the glass etc. At the upcoming meeting we will hand out a short survey for you to fill out about your glass cleaning habits. The purpose of this survey is to show everyone that their tank is not the only one that gets a dirty glass! Even the best of us still get algae on their glass - its true!!

Meeting Venues WANTED!

If you would like to host a meeting, whether it is to show off your setup, or get a bunch of heads together to solve your problems, WE WANT YOU! Don't worry if your tank is only just beginning or you have an algae bloom, we have seen it all before and can help you if you need it. Please

Speak to any of the committee members if you would like to volunteer your home to us!!!! There are currently vacancies for meetings from June to November. Don't be scared, we don't bite (except maybe Tony!).

Our Web Site Will be Moving, Soon....

After some discussion it was decided to relocate our MASWA website to the MASA (Marine Aquarium Societies of Australia) web site. The move will greatly benefit MASWA by the sheer traffic generated on this site and the potential for many more visitors to see what we have to offer. The move will not happen overnight but will be planned for the not too distant future. Our aim for our website is to be a central resource for not only pointing people in the right direction but also have a vast archive of useful and informative articles. If you have any other ideas or information for the website please call or email Terry on **0438 717 300** or newwave@auscyber.net.

Excursions Anyone?

Carrying on from the success of excursions held in previous years, MASWA is keen to get this exciting idea up and running again now that the warmth of summer has returned. If you have any ideas for a MASWA gathering be it for a night dive, a snorkel, a reef walk at low tide, trip to the museum or whatever it may be please speak up and make yourself heard. It doesn't even have to be fishy! A social gathering like a BBQ would be fine too.

Water Test Kits

MASWA has purchased a set of test kits that will be available at each meeting so that members can get their water tested. The idea is to use a standard or central set of kits that can be relied upon to compare water parameters between members' aquariums. To that end, the high quality Salifert test kits are being used where possible. Thanks to the business partnering efforts of the national body, MASA (Marine Aquarium Societies of Australia), we were even able to obtain a discount when we bought the kits from Reef Online (<http://reefonline.com.au>).

Whenever a member's water is tested, the results will be recorded. This will not only give you a reference so that you can see how your parameters have changed over time, but once the database of tests is large enough, it will be a great way to determine normal ranges and suitable averages of each parameter for the typical marine aquarium.

The parameters that are currently able to be tested are Calcium, Alkalinity, Phosphate, Nitrate, Silicate and Salinity (Temperature testing will also be available, but is obviously only viable for the meeting host's aquarium). If you wish to have your

water tested at a meeting, please bring along roughly 200ml of water in a clean, screw-top container (a spring water bottle is best). Make sure you rinse the container with your aquarium water before filling it.

Live Sand Again, Please....

We would like to request that anyone who has a healthy established live sand bed to bring along a small cup full of sand to either donate to the raffle or give to the meeting holder for their tank. You cannot ever get enough life in your sand! The greater the diversity of micro-organisms in your sand bed the more successful your aquarium will be – it's that simple.

Buy, Sell and Swap....

REEF AQUARIUM AND CABINET

122cm X 75cm X 61cm black silicon aquarium with 2X overflow and 2X inlet holes on pine cabinet. Includes all plumbing, 50cm cube glass sump, downdraft protein skimmer (no pump), gravity feed water topup valve and hanging light hood (not including lights!). **\$850 ONO.**

Contact David on:

email: fishnut@optusnet.com.au

mobile: 0412 079 886

METAL HALIDE CONTROL GEAR

Metal halide control gear for 150 watt light. Control gear only - does not include lighting plug and cord or bulb holder and bulb. The asking price **\$75 ONO**

Contact David on

email: fishnut@optusnet.com.au

mobile: 0412 079 886

INCOMPLETE CALCIUM REACTOR

Acrylic tube 200mm in diameter. Is not completed and needs to be finished off. Does not include pump. The asking price **\$50 ONO.**

Contact David on:

email: fishnut@optusnet.com.au

mobile: 0412 079 886

METAL HALIDE GEAR

Metal halide control gear, lamp holder and reflector (including 400 W bulb). The asking price **\$165 ONO.**

Contact Carl on:

email: carlevans@optusnet.com.au

mobile: 0409 785 251