



## *The Living Reef*

### *May 2003*

#### *Editorial....*

Many people say that owning a pet can be a very rewarding process both physically and mentally. What they don't tell you is that once you get one it's hard to stop. The problem lies when you lose your treasured pet companion. The emotional attachment formed between the owner and the pet is a strong one and when it's broken this leads to irrational decisions being made at the pet shop!

Such decisions only lead to more turmoil as the "replacement" pet (or rebound pet) is never as good as the original loved companion. After some time of adjustment thoughts such as "this will be the last" may cross the mind, but only for a second!

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#### *Upcoming Monthly Meetings....*

**May 28<sup>th</sup> – Phillipe Dor**  
10 Cheritons Place, Armidale

*June 25<sup>th</sup> – Paul Taylor*

*July 30<sup>th</sup> – ?*

*August 27<sup>th</sup> – Jan Anderson*

*September 24<sup>th</sup> – ?*

*October 29<sup>th</sup> – ?*

*November 30<sup>th</sup> – Glenn Fletcher*

*December 17<sup>th</sup> – Nathan Cope*

**Meetings start promptly at  
7.30pm!**

## MASWA Contact Information....

### Committee

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Currently Vacant

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Currently Vacant

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#### Science Officer

Currently Vacant

### Web Address

[www.auscyber.net/maswa/](http://www.auscyber.net/maswa/)

### Membership Payments

Make cheques payable to:

Paul Taylor (MASWA Treasurer)

PO Box 7185

Shenton Park WA 6008

### 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

*As winter approaches and the temperature drops our aquariums lose heat more rapidly and the aquarium heater is left with the burden of keeping the water warm! Often many of us unplug our heaters over summer however its now time to plug them back in so that they can do their job. On cold nights air temperatures can drop quite low and without an efficiently working heater the aquarium temperature may not be able to be kept from falling. To help our poor little heaters cope with this stressful time there are some small things that can be done to make their lives a little easier. They include cleaning off all encrusted organisms from the glass, making sure they are mounted in an area of high water flow and lastly adding some foam insulation to the back and sides of the aquarium. Try some of these tips this winter and make a difference in the life of the often neglected aquarium heater.*

## April Meeting Rundown....

By Nathan Cope

Anyone who wasn't able to make it to last month's meeting at Elmer Ellison's house, certainly missed out on a spectacular aquarium! Elmer's tank is 7' (2.15m) by 7' (2.15m) square which, for those who can't visualise dimension in their heads, is just enormous - approximately 3000 litres. When I first heard about it, I couldn't imagine how anyone could incorporate a 7' square in their lounge without relegating the TV and couch to some less appropriate part of the house. Once I arrived at Elmer's address and saw the size of his house, though, I was beginning to think that the aquarium probably wouldn't look so out of proportion. When I entered the front door, I was greeted by a window

onto the Barrier Reef - I felt like I'd entered a modern public aquarium (not one of those ones that maintain their aquariums around the philosophy of voodoo and other dark arts).

The entire aquarium appears almost seamlessly integrated with the house and once you learn that Elmer sited the tank in place of a disused atrium that was part of the original house design, you can understand why. And, because it was originally an atrium, the tank location has a convenient drain in the floor for Elmer to dump his waste water and to rectify any unexpected overflows - another reason for most of us to be jealous of Elmer. The transparent roof of the atrium allows some sunlight in, although it wasn't enough to keep plants alive, which is why Elmer decided to make better use of it. It does, however, give Elmer's house an unusual look at night as a faint blue glow can be seen in the middle of the roof when walking along the street. This glow is attributed to the 5 x 400W metal halide lamps hanging over the aquarium - 3 x 20,000K Radiums and 2 x 6000K GEs. Despite the fact that the aquarium is on the ground floor of the two-story residence, it is able to be vented through the roof - another legacy of the old atrium.

Elmer says that he loves aquariums where you don't see everything in it at first glance - he likes something where you have to sit and watch it for hours just to see the most obvious inhabitants. That's a pretty good description of Elmer's tank and accordingly, he isn't sure exactly how many fish are in the tank. He has deliberately left out wrasses and Blue Tangs, though, as he believes them to be too aggressive for a harmonious community reef tank. And to his credit, all animals did appear to be getting on fantastically - even the five Flame Angels!

I, for one, hope we get invited back to Elmer's house soon.

## *May Meeting Information....*

The next MASWA meeting is at Phil Dor's house. Phil's tank is a traditional 4 footer and was moved mid April from inside his house to his new purpose built large (55m<sup>2</sup>) workshop, assembled with insulated coldroom panels and 50% skylights. Also viewable at Phil's house are two aquaculture breeding tanks (1.2m X 1.2m) with a built-in "aquafush" filter. These tanks apparently allow for continuous, crash-free culturing of microalgae,

rotifers, brine shrimp or larvae of fish and/or other inverts.

Phil is the only hobbyist I know who can claim to have developed his own reef keeping system. Phil's display tank is setup in what he calls the Ezyreef System which he developed and has continually perfected over the last 12 years during his time providing aquaculture maintenance in Cairns. The very first Ezyreef tank was setup 5 years ago at the Radisson Hotel in Cairns, but apparently Phil's tank is the first complete system in WA based on the latest version of the Ezyreef System. It is comprised of a 1/3 "Aquafush" filter, a 1/3 deep sand bed and a 1/3 rock pool in the main tank, and an Ezyreef designed counter flow protein skimmer, along with an improved Jaubert sump/refuge and large calcium reactor. Phil says his Ezyreef design is aimed at maximising efficiency and reliability with minimum complexity, labour input or financial investment. According to Phil, Ezyreef Systems can not crash and all potential "mishaps" have been eliminated. Phil believes they are the ideal setup for beginners through to experts and will save the reef hobby many headaches and losses that other systems are prone to.

The whole setup should make for an interesting meeting but to top it all off, the MASWA meeting will coincide with Phil's last eye operation and the long delayed relaunch of his business in WA. Phil tells us that his business launch will see the first batch of factory produced "Aquafush" aquarium filter bases plus a media campaign to appoint local distributors.

The meeting will begin at **7:30pm** sharp and the address is **10 Cheritons Place, Armidale**. If anyone has problems getting to this meeting and would like a lift please don't hesitate to contact one of the committee members so that we can try and find some transport for you.

## *Attack of the Killer Cnidarians, Part I...!*

**By David Bloch**

It is often said that some Cnidarians such as corals are hard to keep in captivity. This can be true however lurking in the world of "Cnidaria" there are a few species that can be considered weeds! These Cnidarians have the potential to take over an unsuspecting reef tank in a manner that can only be considered as WAR!

Most of the time the unsuspecting coral aquarist doesn't notice the rapid advance of the "weed" until

it's too late. By this time the only way to control the spurge of attack is to hit the armoury and get out the big guns. The tools of choice include biological warfare, the stanley knife, the kitchen shears, the hammer and chisel and the lethal injection!

The enemies or "weeds" are usually quite unsuspecting and more often than not are purposely added for their grace and beauty. This initially leads to a kind of joy that the new coral is thriving and spreading and later on turns to dismay as the neighbouring corals are slowly stung to death and engulfed in the rapid growth of the this waring party.

Not always are the "weeds" purposely added to the aquarium. Sometimes they are just hangers on, attached to a piece of rock or coral. Here they sit and grow, waiting for the right moment to go forth and multiply! It is from here that a decision must be made to turn the tide and rid the aquarium of the attacking party.

Before we can discuss removal and "killing" of the offending "weeds" we need know who and what they are and find their strengths and weaknesses. Of the offending critters, they can be divided into two groups, the ALWAYS pests, and NOT ALWAYS PESTS! The *always pests* are the ones that are never welcome in an aquarium and are an uninvited addition. They usually arrive as "hanger ons". The best known examples of these include the pest anemones *Aiptasia sp.* and *Anemonia sp.* The *not always pests* are normally purposely added to the aquarium and are not usually considered pests unless they are allowed to grow wild and unchecked. Examples of these include *Xenia sp.*, *Anthelia sp.*, Zooanthids, *Clavularua*, and the anemone like Coralimorphs.

*This brief introduction is the first part in a series of articles dealing with the who, what, and how of dealing with the "Attack of the Killer Cnidarians!" Next month we will further identify the culprits and look at what gives them the potential to become a problematic addition to the reef aquarium.*

## MASWA Message Board....

### 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!).

### 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.

### Raffle Prizes Please....

If you have any spare aquarium products, coral fragments, live rock or sand or anything worthy for donation to the raffle please bring them along to the next meeting.

### New Grade of Lime Sand Available

Thanks to ex vice president Sid, we have found out about a new grade of lime sand available from Cook Industrial Minerals. The existing product which many of us have used is quite fine, being in the size range of roughly 100 to 500µm. The new courser grade is between 1000 to 2000µm (1 to 2mm). The chemical properties are still the same, only the size is different. The product is available from Cook Industrial Minerals (CIM), Cutler Road, Jandakot, 9417 1111, [info@cim-pl.com.au](mailto:info@cim-pl.com.au).

### Excursions....

MASWA is keen to organise excursions and social events for its members. Below is a list of possible excursion venues:

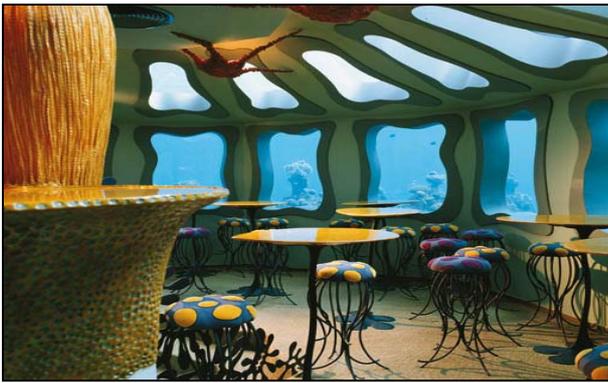
- Wasterwater treatment plant (pooh!)
- Fremantle Maritime Centre Aquaculture Hatchery (TAFE)
- Aquarium Shop Crawl (Anyone drive a bus? Ed.)
- Snorkelling Trip/Picnic to Port Gregory (Reef is a Sanctuary Zone, Doh!)

These are just a few suggestions. If you are interested or have any other venue suggestions please let a committee member know.

## Fishy Links and News....

### RESTAURANT UNDER THE SEA!

What could be better than dining below the surface of the ocean within a beautiful coral reef? This is the reality in the Red Sea in the middle of a coral reef at a depth 6 meters and 90 meters from the coast in the Bay of Eilat. A fully functional restaurant!



The web site for details about this amazing restaurant can be found at:

<http://www.redseastar.com/aboutus-en.php>.

### **BRAZIL HAS MORE SPECIES OF FISH**

RIO DE JANEIRO, Brazil (AP) -- It's not the case of the one that got away but of the thousands of fish that until now escaped scientists' grasp. A new study shows that Brazil -- thought to have the world's greatest variety of freshwater fish -- has more than twice as many species as had been thought.

It was estimated the country's massive rivers and flood plains were home to 1,300 or so species, but a six-year survey now nearing completion has catalogued nearly 3,000 strains. By comparison, the United States has only about 790 species and China is estimated to have 700-800.

Scientists found entirely new species -- including one with a quirky way of luring female fish. But they also found their work was more urgent than expected since Brazil's fish are vanishing at an alarming rate due to forest destruction that robs rivers of nutrients. "How can we know what needs to be preserved if we don't even know how many species exist?" said Naercio Menezes, a professor

at the University of Sao Paulo who coordinated the survey.

The government-funded study also examined Brazil's vast Atlantic coast, but it turned up fewer surprises because the saltwater species are better known.

Since 1997, researchers from four major Brazilian universities have conducted more than 30 expeditions to rivers, lakes and streams in the nation's heartland, collecting some 50,000 specimens.

The surprises began when scientists started simply adding up the number of species documented by researchers working separately at different institutions across Brazil -- something no one had bothered to do before. The number of recorded species was more than double what was believed.

But the survey also found hundreds of species that were unknown to science. Menezes estimated the number of new species at 10 to 15 percent of the total. Researchers expect the final tally to take years, because of the time required to describe and catalogue new species.

A scientific description of one new species, *Hyphessobrycon heliacus*, already has been published in the scientific journal *Copeia*. The fish is a golden-colored tetra, just 1.26 inches long, with yellowish-red fins and a large black spot on its tail.

Another as-yet-unnamed species, a tiny bluish fish measuring about 1.5 inches, is to be described in the prestigious scientific journal *Proceedings of the Biological Society of Washington*. Scientists say the species is unique because the sexually active males have a special gland on their anal fin which secretes pheromone, a substance that excites females of the species during courtship.

No other known species has such a gland on that fin, said Stanley Weitzman of the Smithsonian Institute in Washington, D.C., who is a co-author of the fish's scientific description. "It's giving us a new view on the diversity of fishes in South America," he said.

Weitzman said that one reason for the diversity in Brazil is its varied geological and climatic history. Isolated by elevation and accompanying temperature differences, fish were separated by natural barriers that allowed species to evolve differently over thousands of years. "Some waters are acid, others are neutral or somewhat alkaline," Weitzman said. "There are so many tributaries to the main Amazon river, many with a different ecology."

To make the most of their limited resources, researchers concentrated on the headwaters of little-studied rivers in Brazil's remote interior. Given the nation's sheer size -- larger than the 48 continental United States -- they believe many species remain to be discovered.

But the study also suggested what scientists had feared: A number of species may have disappeared for good, victims of pollution and deforestation. "We have to document what exists as rapidly as possible," said Menezes. "We are convinced there are species that have already disappeared without being scientifically described."

The inventory, which is being put on the Internet, will allow users to create distribution maps showing where the fish live. Researchers hope the documented existence of rare species will encourage policy-makers to preserve them. "There's a very direct link between the health of the forests and the number of fish in the rivers," said Paulo Buckup of Rio de Janeiro's National Museum, who is in charge of putting the catalogue on the Internet.

Buckup said the number of species in a well-forested area can easily reach 70 or 80, dropping dramatically to just four or five in an area where the surrounding forest has been cut down.

The loss of forests changes the alkaline balance in the rivers, he said. Some fish also live on the fruit that drops from trees, and when the trees are gone they starve. The expansion of agriculture, especially soybeans, also has hurt the fish population as pesticides kill insects that are an important food source.

<http://www.mnrj.ufri.br/catalogo/>.

### PERFECT "FISHY" DESK JOB

Imagine looking over to your work colleague - through an aquarium! You wouldn't want any leaks!



## 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 top up valve and hanging light hood (not including lights!). **\$800 ONO.**

Contact David on:

email: [fishnut@optusnet.com.au](mailto: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](mailto:fishnut@optusnet.com.au)

mobile: 0412 079 886.

### AQUARIUMS AND MISC. GEAR

Various aquariums ranging from 2ft to 5ft of. The 5ft aquarium is drilled. There are also powerheads, fluorescent lights and heaters. Make an offer for the lot or purchase separately.

Contact Andy on:

Email: [conquest@iinet.net.au](mailto:conquest@iinet.net.au)

Phone: 9377 7362 (after hours or weekends).