



The Living Reef

December 2003 – Merry Xmas

Editorial....

It's been a busy year @ MASWA with the committee working hard to come up with new and exciting ideas and events for 2003 and beyond. MASWA has had a good turnout of members to meetings this year with the level of hosting member aquariums being far higher than ever before. With the end of the year steadily approaching us we will bring 2003 to a close with the December **CHRISTMAS** meeting at our President, Nathan Cope's home. This has become somewhat of a tradition for MASWA and hopefully this year will not be the last! I have had a great time being the "Editor" for MASWA in 2003 and hope to keep you up to date in 2004. Have a Merry Christmas, a Happy New Year and see you on the 17th December 2003.

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MASWA Meeting Calendar....

December 17th – Nathan Cope
21 A Norton Road, South Perth
CHRISTMAS MEETING – Trophies,
Presentations and Special Raffle

January 28th 2004 – Paul and Gertrude Tayler
AGM and Guest Speaker

February 25th 2004 – David Bloch
FRAGFEST

March 31st 2004 – Elmer Elison
Special Raffle

April 28th 2004 – Grant Magil
Guest Speaker

May 26th 2004 - ?
FRAGFEST

Meetings start promptly at 7.30pm!

MASWA Contact Information....

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MEMBERSHIP PAYMENTS

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EFT: Make all EFT transfers to BSB 086 217 A/C # 69355 1664 (please include your name on all EFT transfers!).

Cash: Make payment in person only.

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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.

off the mark by Mark Parisi

www.offthemark.com



November Meeting Rundown....

We've gone south to Bibra Lake and Armadale, north to Padbury and Currabine and last month we went east to Guildford! It may have been a long way for a few but no matter how far or wide we travel it's always worth the experience both the host and guests get from seeing a different aquarium for the first time.

Glenn's tank was a shining example of what to do well in a first time reef setup. He had a nice deep layer of live sand, an excellent open and natural looking live rock reef, good quality hardware and some really healthy looking fish and invertebrates.

Even though Glenn's tank was still young by most standards he has had a very good run with very few major problems occurring. His luck may be about to change however as he is shortly going to install 800 watts of metal halide lighting above his tank! Time will tell whether he has a major coral bleaching, algal bloom or maybe no negative change at all! This is all part of the uncertainty that surrounds reef aquariums.

Some people have nothing but unfortunate luck even though they have done everything right and others can get away with less than a perfect setup and get spectacular results. This is the reason why no one can ever say that what they do is the only way to do it! You know what they say, there is more than one way to skin a cat. I personally haven't tried but have a pretty vivid imagination!

This is the reason why MASWA meetings are so important, especially for beginning aquarists like Glenn. They give the chance to see and experience new ways and ideas of setting up and thinking about the hobby. They give you a new perspective on aquariums that mostly are unbiased by the old mighty \$\$.

After that ramble I would like to express my appreciation to all who partook in our Fragfest and who donated live specimens to the raffle. The Fragfest was a huge success even though we took forever to setup and then didn't really know how to proceed! We worked it all out in the end with both "Fraggees" and a few new members taking home some goodies.

Thankyou to all who attended and hope to see you all next month at Nathan's home.

December Meeting Information....

CHRISTMAS time is here again something something something something la (I think it's a **CHRISTMAS** song.....? Ed.). Anyway you get the idea!

December is here and our inaugural **CHRISTMAS** meeting and windup for 2003 will be at the home of our President, Nathan Cope. Nathan has had a troublesome year with his aquarium in 2003. After discovering a small leak 2/3 the way down the glass he had to drain, move, relocate, fix and restock his aquarium. Unfortunately he lost his fish and three large clams. On the bright side however his tank is looking better than ever. In fact his live sand bed is so full of life that it is literally crawling! It's hard to believe that some 6 months ago his biggest nightmare, a tank leak occurred at all!

Being the final meeting for the year and coinciding with **CHRISTMAS** our windup meeting will be packed with **CHRISTMAS** cheer and festivities not to mention a sausage sizzle, door prize, extra species bonus raffle as well as the long anticipated trophies and awards! In fact we have over \$200 in prizes up grabs for the raffle and door prize!

Please come along and celebrate our last meeting in the **CHRISTMAS** spirit. The address for the meeting is **21 A Norton Road, South Perth**. The meeting starts @ **7:30pm**.

MASWA Message Board....

AGM IN JANUARY!

Time is getting closer to the most important event in the MASWA calendar, the AGM. The AGM will be run next month, in the January 2004 general meeting. This year we have run MASWA without a full committee. Missing were the positions of Secretary and Vice President. Next year we want to fill all the positions so that we can do a better job at organising and running MASWA.

The Positions in the MASWA committee are:

President

Vice President

Secretary

Treasurer

Newsletter Editor
Webmaster
Social Coordinator
Science Officer

What does it mean to be a MASWA committee member? For six days a year (every second month) you get to take an active role in the running of MASWA. You also get to sample the delights of Gertrude's cooking (Paul Tayler's wife). The pay is crap - \$0.0 however the social interaction and "stories" you hear are very entertaining!

To be in the committee you need to be nominated either by yourself or someone else, and if no one else is nominated for that position you are elected to that position. If there are other nominees then a vote is taken by the members for the successful candidate for the position.

If you think you have what it takes and are keen to help out then please talk to a committee member at the upcoming meeting and make your intentions known

MEMBERSHIP SUBSCRIPTIONS FOR 2004 ARE NOW DUE!

The end of the year is here and membership subscriptions for MASWA 2004 are now due. We will not be carrying unfinancial members for months at a time like in previous years. Memberships cost \$24 for "general membership" (includes partner or child) and \$12 for "associate/country membership" (for those not attending meetings). If your membership dues are not paid by the January 2004 meeting you will be struck off the membership register and receive no more newsletters! A membership invoice can be found on the back page of the newsletter and for payment information please see the "MASWA Contact Info" on page 2.

MASWA RAFFLE NEWS!

A special on raffle tickets, 6 for \$10 is here to stay! At this price the tickets are selling like hot cakes and what's wrong with that? Nothing, especially when you see what's up for grabs on the raffle table this month!

MASWA 2004 ARTICLE PRIZE!

To try and encourage members to get actively involved we have decided to offer a \$100 prize to the person who has contributed the most hobby related articles, cartoons or jokes etc to the MASWA 2004 newsletters. The content must be suitable for general audiences (no rude jokes Nigel and Tony! Ed.). The winner will be announced at the December 2004 **CHRISTMAS** meeting.

Product Review - Tunze Turabelle Pumps....

By Grant Magill

Tunze have released their own range of wave making Turabelle pumps. Instead of cutting in and out like a standard wave making device these pumps are

electronically controlled so they can pulse between different currents at intervals without stopping completely.

These pumps can be controlled either by a single or multicontroller. The single controller that can operate up to two pumps and can pulse them at intervals of one to five seconds with a water current output of 30% to 100% of the pump's flow rate. The multicontroller can operate up to eight pumps and can pulse them anywhere from one minute to twelve hours with an output water current of 30% to 100% of the pump's flow rate. Both controllers have the option of connecting a photocell that reduces the maximum water pulse to 30% once the aquarium lights turn off at night and a feed timer that shuts down the pumps for ten minutes while the aquarium is being fed.

The Turbelle pumps come in two forms, the first being the standard type powerhead and the other the stream pumps. The powerheads come in flow rates of 500 to 4000 L/H with a wattage range of 5 to 44 watts. The stream pumps, unlike the powerheads are only designed for water circulation and cannot pump a large head of water. They come in flow rates from 7000 to 12000 L/H with a wattage range of 15 to 44 watts. All the pumps can be manually adjusted from 30 to 100% of their flowrate (without having a controller) and the smaller pumps can have their flow rates increased by changing the electronic control base that each pumps plugs into.

The stream pumps, unlike conventional powerheads have a water outlet nozzle that is a much larger diameter and the flow is pushed out in a cone shape, not a straight high velocity stream like in a conventional powerhead. The pumps come with a wide array of mounting brackets to suit most situations so that they can be held secure and don't fall over.

Just a final word, I would like to thank the staff at Perth Aquarium and Display Centre for their help and assistance with the Tunze products.

Glen has been running a single 12000 L/H Turbelle pump with a single controller for a month or so now. His corals have reacted very positively to the new flow pattern. We will see how Glen's tank has progressed with this new gadget in April when our general meeting will be at his home – Ed.

Fishy Links and News....

POISON FROM LETHAL FISH COULD BE A PAINKILLER - By Rachelle Younglai

A tiny Canadian company wants to use poison from a fish -- a substance more toxic than cyanide to help cancer patients suppress pain or to wean heroin addicts off their habit.

International Wex Technologies, a Vancouver-based company listed on the small-cap Canadian Venture Exchange, says early trials show positive results from tetrodotoxin, although bigger and more extensive tests

will be needed before the product reaches the marketing stage.

It says the new drug could be on the market within three years, if all the tests work out.

The new drug is derived from a blowfish poison -- a substance so dangerous that a mere trace can paralyze a person within minutes.

The blowfish is known to gourmets as the source of the sometimes deadly Japanese fugu delicacy, a dish that can be prepared only by trained and licensed chefs, because the slip of a knife can poison the food, causing the diner to drop to the ground convulsing and gasping for air.

It has been described as the culinary version of Russian roulette. But the drug derived from the poison, tetrodotoxin, has already passed two phases of clinical tests, and doctors conducting early surveys say it eased pain in terminally ill cancer patients, where no other pain medication had worked.

"It quickly became apparent that some patients were having a dramatic response. You would not have expected these results in existing treatments," said Dr Edward Sellers, a professor of pharmacology at the University of Toronto who helped Wex conduct its Phase II trials, a study of 22 patients.

Sellers said one patient in his mid-50s was in such agony that he couldn't even wear his clothes without sharp surges of pain.

But with shots of Tectin, Wex's patented name for tetrodotoxin, his pain subsided for more than week.

Researchers injected patients with several micrograms of Tectin -- a quantity so small it can't be seen with the naked eye -- twice a day for four days, and found that nearly 70 percent experienced a reduction in pain.

Pain relief began around the third day of treatment, and often lasted after the final injection. In some cases, the relief extended beyond 15 days, the study showed.

Tectin, a sodium channel blocker, stops nerves from sending pain signals to the brain.

The company says Tectin differs from other painkillers in that it doesn't have the same side effects as morphine and its derivatives, doesn't interact with other medicines and is not addictive. It is up to 3,200 times stronger than morphine.

The success of the early Tectin tests is a small coup for a company that has set its sights on the \$38 billion North American painkiller market, some 10 percent of which comes from managing cancer pain.

Wex says that each puffer fish can provide about 600 doses of the drug from within its liver, kidneys and reproductive organs, so there is no shortage of the toxin.

It wasn't always about pain for Wex. Wex's founder, Hay Kong Shum, a medical technician who was educated in Russia and China, originally hoped Tectin would help ease withdrawal symptoms.

But preliminary studies found the poison had painkilling properties and the company, facing limited resources, decided to take a shortcut to profitability. It put the heroin therapy on the back burner and turned to the painkiller industry.

"It was the easiest way for us to get to market," said Donna Shum, Hay Kong's daughter and Wex's chief operating officer.

Wex's interim test results have caused some murmurings among health-care workers who wonder about the potential of this painkiller.

But researchers and analysts are not yet touting Tectin as a drug to rival morphine. Wex still has to take its drug through crucial phase III trials, where it ramps up its test numbers to at least 400 patients.

The drug also faces an image problem. "Because it's associated with death, it got a bad rap," said Sellers.

And although the scientific community may acknowledge the properties and benefits of the compound, it is less accepting of a drug derived from nature.

"There is a resistance from the medical community to accept treatments from the natural world," said Rob Peets, an analyst with Golden Capital Securities. "If this was a chemical product it would have been snapped up a long time ago."

Wex's stock has jumped about 150 percent since August.

<http://www.reuters.com/newsArticle.jhtml?type=topNews&storyID=3918474&pageNumber=0>.

SEADRAGONS BACK IN VIEW - By Peter DeMarco

The tiny, wispy creatures with pony-like heads and bizarre, twiggy bodies zip through the water on the strength of nearly invisible fins. Camouflaged to look like seaweed, seadragons - the colorful, thoroughbred cousins of seahorses - seem to vanish into the tank's reefs.

"Some fishes to me are not very elegant. They tend to be goofy," said Steve Bailey, curator of fishes at the New England Aquarium. "These animals are very august, very stately. They just have a physical presence about them. They make a good first impression."

Local aquarium-goers caught their first glimpse of seadragons in a popular but temporary exhibit that closed almost four years ago. Now, thanks to more than \$200,000 in grants, the rare Australian animals are back in a bigger and more awe-inspiring display that officials hope will attract crowds and provide a welcome distraction to the aquarium's well-publicized financial woes.

Instead of the four seadragons on view before, as many as a dozen orange and yellow-green "leafy" and "weedy" dragons will inhabit a new, 8-foot-wide semicircular tank, their diminutive, delicate bodies magnified into virtual underwater giants by the tank's carefully constructed concave angles.

For the first time in a North American exhibit, seadragons will appear in a setting that mimics their lone natural habitat off the southern coast of Australia and Tasmania. The specially designed tank has been outfitted with faux soft corals; underwater jets create mock currents; sea stars and imported species of hula fish and butterfly perch will soon join the dragons to create a more vivid scene for museum-goers. The water temperature, meanwhile, will be kept at a steady 60 degrees, just like the dragons would find back home, 10,000 miles away.

The current display, unlike the previous one, will be permanent, aquarium officials say. Visitors are mesmerized by sea dragons at more than a dozen major aquariums: They have become the "in" fish since the Boston Aquarium became the second facility in the country to feature them in the late 1990s. Aquarium officials hope they will make patrons eager to pay to see them again.

At the Aquarium of the Americas in New Orleans, the four-year-old seadragon exhibit is one of the highest rated in the museum, and everyone who goes to the museum sees it, according to a visitor survey.

"You couldn't believe how much kids liked the seadragons. It was like Nemo," said biologist Anthony Davi, who designed the seadragon exhibit in New Orleans before transferring to the New England Aquarium earlier this year to help install a similar tank there.

"It's a very physical thing," Bailey explained. "There's a natural affinity for terrestrial horses, and people are struck by the incredible similarities in their physiognomy."

Female visitors are particularly fond of the sea dragons, Bailey said, especially "when they find out that ... it's the female seahorses who play the field, while the males get [stuck] caring for the eggs."

Seadragons' reproductive practices - the exhibit's information boards explain how the male dragons are "stay-at-home moms" who carry hundreds of eggs on their sticky tails after fertilization - are just one of their many oddities, scientists say.

Their crooked, spiny bodies are unlike that of any fish, with weedy seadragon's bodies resembling bare tree branches and the more ornate leafy variety boasting appendages that look like seaweed leaves. When not hunting food, they float lifelessly through water, like flotsam. But when on the prowl, they dart and summersault with grace, pointing their long snouts at food, such as minuscule shrimp, and vacuuming up the water around their prey to obtain a morsel.

Weighing no more than a few ounces each, and costing as much as \$1,500 apiece - a protected species, the Australian government has strict guidelines on their export and trade - they are literally worth more than their weight in gold, Davi said.

Their delicate features and hypersensitivity to environmental changes, however, make seadragons extremely difficult to care for. Simple changes in light or water temperature, or common fish-tank bacteria, can

cause death-inducing stress, biologists say. Since seadragons can't regurgitate air, they can die just by sticking their snouts out of water.

Only one facility, the Long Beach Aquarium in California, has been successfully breeding them in captivity.

Attempting to replicate the seadragons' temperate coral reef habitat, while at the same time coping with their numerous needs and complexities, has made the seadragons' return a particularly laborious and somewhat risky project, aquarium officials say. "People think we're nuts to try this," Bailey said.

"For us, sciencewise, it's a challenge," Davi said. "But it's something we've been working to do for years."

Indeed, long after the first seadragons exhibit closed in January 2000, aquarium staffers remained smitten by the animals, holding onto a few of them in a back-room tank to wow family, friends and trustees.

The current exhibit, conceived a year ago, came to fruition last spring after the aquarium received a \$350,000 grant from the Charles Hayden Foundation and another sizable grant from an anonymous donor (some of the money was used for more general aquarium renovations, officials said.).

In April, the aquarium shipped its remaining seadragons from the late 1990s Coastal Rhythms exhibit to a Minnesota aquarium, out of fear that mixing the older dragons with newer imports would be a bad idea. By June, a dozen 11/2-year-old seadragons, valued at about \$30,000, arrived, and workers and legendary aquarium habitat designer Peter Brady have been busy ever since.

Last Tuesday, three days before Seadragons' official opening, Bailey, Davi and fellow biologists Mike Kelleher and Brian Nelson gathered around the new 2,600-gallon tank and slipped the first seadragon into its blue waters.

At first the dragon, a weedy type about 8 inches long, didn't appear to know what to make of its new surroundings. But soon it was darting across the spacious tank, strutting itself in clear view.

"Oh! Whoa! You gotta see this, Mom! That's a dragon," squealed Daniel Galef, an 8-year-old boy who had wandered into the still-closed exhibit through an open door. "That does look like a dragon, doesn't it?"

The scientists, meanwhile, seeming very much like 8-year-old boys themselves, coached the fish to eat shrimp they had dropped in the tank. Eating would be a clear sign that the dragon would take to its new habitat.

"C'mon, Schmedly. You can do it!" said Bailey as the dragon poked its snout, toward a tiny shrimp, like a bird after a worm. "Yeah, he scored! He scored. Excellent."

The museum, which is on the Central Wharf in Boston Harbor, is open from 9 a.m. to 5 p.m. weekdays, and 9 a.m. to 6 p.m. weekends during the fall. Admission is \$15.50 for adults, \$13.50 for those over 60, and \$8.50 for children ages 3 to 11. Members and small children get in for free. Additional charges apply for the museum's IMAX theater. For more information, call 617-973-5200 or visit <http://www.neaq.org>.

http://www.boston.com/news/science/articles/2003/12/02/seadragons_back_in_view/.

CLAMP ON PET-FISH ESCAPEES

Sunday Times, 7th December 2003 – PET fish will come under the spotlight as part of a \$120 000 study to ensure rogue aquarium escapees don't cripple Australian waterways.

Federal Fisheries Minister Senator Ian Macdonald said the study could save millions of dollars by minimising the chance of an environmental accident.

"It would only take one person to foolishly put a fish which is carrying disease into a system like the River Murray and we would have an environmental disaster on our hands," Senator Macdonald said. "History has shown how well ornamental fish can adapt to the wild."

There were reports in Australia of some children trying to set their aquarium fish free after watching the hit animated movie *Finding Nemo* which was set on Queensland's Great Barrier Reef and in Sydney Harbour.

Senator Macdonald, through the Federal Government, has committed \$60,000 to the study. Another \$60,000 will come from state and territory governments.

As part of the study, an agreed list of which species can be traded among states will be developed and a national approach taken to dealing with exotic species.

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INVOICE No:
DATE: 31st December 2003

Billing Address:
Paul M Tayler
Treasurer
PO Box 7185
Shenton Park
WA 6008

For:
Membership 2004

DESCRIPTION	AMOUNT
Membership fee for period 1 st January 2004 to 31 st December Our membership fees are due and payable by the 31st December 2003 MAWSA as not for profit organization is not an enterprise and has no reasonable expectation of profit or gain	24.00
TOTAL	24.00

Make all cheques payable to **Paul M Tayler**

Make all EFT transfers to **BSB 086-217 A/C # 69355 1664**

NB It is important to include your name on all EFT transfers

If you have any questions concerning this invoice, contact [**Name, Phone Number, E-mail**]

THANK YOU FOR YOUR SUPPORT

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.