

MASWA

Newsletter

October 2001

ATTENTION: This month's **MASWA** meeting is on **Wednesday, 31st October**. Check your calendar, because it could be the day you receive this!!!

THIS MONTH'S MEETING

This month's meeting will be at Sid Harrison's house in North Beach. Sid is a very talented lad – he is an electronics guru and has designed and made quite a few gadgets for his aquarium. Some of the projects he has built include a wavemaker, a chest freezer/chiller sump and a temperature alarm/controller for his cooling fans. Sid has an interesting aquarium that is viewable from the front as well as through the back via cut outs through the lounge room wall. The aquarium is setup as a Berlin system with live and, live rock and a downdraft skimmer. Lighting over the tank consists of fluorescent lamps. The rock and sand were collected by Sid at Jurien Bay, a location he frequents quite often to escape the hectic city life! The meeting will start at **7.30pm** and the address is **9 Wilberforce Street North Beach**. We look forward to seeing you all there.

LAST MONTH'S MEETING

By Nathan Cope

Last month's meeting was at Tom Devilee's house. About four years ago, Tom started with a 5' x 15" x 15" tank but around 18 months ago, he decided this wasn't big enough and converted to a 6' x 20" x 20" (that's three times larger in volume!). The new system uses a combination sand settling filter and coral rubble trickle filter to keep the water clean. Water is only circulated via a relatively small 1500 l/h pump moving the water from the sump filtration system back up to the main tank. I don't recall seeing a protein skimmer and Tom says that water changes are "few and far between". The entire tank is only lit by two 4' fluorescent bulbs.

While there are a few corals, Tom's aquarium is obviously setup mainly for keeping fish and to that aim, it houses around 35 specimens! There is not enough room to mention them all here. Some of the more interesting ones are a pair of Flame Hawkfish and two Long nose Hawkfish that Tom says aren't a pair, but never fight with each other. Tom has five Firetail gobies (*Nematelotris* spp) of two different species in the tank as well. Two of them had previously paired up and laid eggs at one stage, but unfortunately, one of the pair died.

Despite the low water movement, infrequent water changes, trickle filter, no protein skimmer and large bioload, there are only tiny patches of red slime "algae" (cyanobacteria) appearing on some projecting bits of rockwork. The very low lighting partly explains why there is so little cyano or any other undesirable forms of algae. Because of the limited lighting, Tom has chosen mostly low light corals for the aquarium, such as corallimorphs, *Dendronephthya* and *Tubastrea*. There are a few small Bubble corals but most are not fairing well.

The most interesting part of this meeting was Tom's Fish Breeding room. This housed various tanks and tubs. Some contained live foods such as rotifers and copepods and others contained juvenile dottybacks, *Percula* Clowns and breeding pairs of dottybacks and Banggai Cardinalfish. It was amazing to see a small aquarium filled with tiny silver-coloured fish which are actually dottybacks that aren't yet old enough to have developed any colouration. Tom has been able to keep previous batches of this species of dottyback alive only for 15 days, but suspects that after that they are succumbing to a nutritional deficiency and consequently dying. To attempt to correct this problem, Tom has employed

the plankton collection technique outlined in last month's newsletter to provide plenty of copepods to his young dottybacks. At the meeting, the dottybacks were only three days old, so we'll have to wait till the next meeting to find out if the copepods did the trick.

MASWA NEWS

Its now October and this means that its time to rejoin MASWA for 2002. Our membership donation remains unchanged from last year at \$22.00 adults, \$11.00 children, and \$12 half year membership. Please rejoin MASWA as soon as you can as we cannot carry any unfinancial members past January 2002.

THE MASWA GUIDE TO THE PERFECT AQUARIUM

By Sid Harrison

If you had the chance to redesign your aquarium systems, would you do it differently? How many modifications would you make to improve it? What fish or corals would you not keep?

One of the aims of MASWA is to share information to prevent others making the same mistakes. To this end we are attempting to produce a "handbook" of members ideas, and your input is not only requested, but is compulsory (offenders will be harshly disciplined – Ed.).

To start with we want your ideas, experiences, hints, suggestions, tips. recommendations, opinions and considerations on designing the aquarium vessel eg we know to make the aquarium as wide as possible since refraction causes it to appear narrower. Other considerations would be size and placement of the outlet/inlet holes etc. No detail to small!

Contributions need not be in essay form. Notes and jottings of your ideas together with the reasons for them are fine. In time we will collate them into the required format. You can either give them to me at a meeting or snail mail them to 9 Wilberforce Street, North Beach 6020.

Our intentions are to examine at least one criteria (ie lighting, filtration etc) each month in an effort to complete a useful informative "handbook" as quickly as possible. Your input in this venture is essential, so by Novembers meeting I would expect your contributions on your design ideas for an aquarium (the glass box – Ed.).

FISHERIES PROHIBITION ON RECREATIONAL COLLECTION OF CORAL AND LIVE ROCK

By Nathan Cope

We have finally been given the information in regards to the prohibitions on recreational collection of animals for the marine aquarium hobby. It took a lot of effort to track down the specifics of this order. It wasn't published by the State Law Publisher and I had to call Fisheries three times to finally get them to send me a copy of the order. This doesn't fare well for the general public who are not as familiar with the legal system as I am considering that ignorance of the law is not a defence in court.

The order is part of the Fish Resources Management Act 1994 and is specifically called "Prohibition on Taking Fish (Coral and Related Fish) Order 2001" It is dated 2nd July 2001.

It says, "A person must not take for any purpose, other than a commercial purpose in accordance with an authorization (sic), any coral or related fish.". In the interpretation section of this order, it says, "In this order "coral and related fish" means any fish of the scientific classification –

- (a) Class-
 - Anthozoa;
 - Hydrozoa;
 - Polychaeta;
 - Crinoidea;
 - Ascidiacea;
- and
- (b) Phylum-
 - Bryozoa;
 - Porifera.

- The first 2 classes, Anthozoa and Hydrozoa, are basically all Cnidarians except jellyfish. This means you can't collect hard corals, soft corals, hydroids, gorgonians (sea whips and fans), anemones (including Cerianthus or tube anemones), corallimorphs (mushroom polyps), zoanthids (button polyps, colonial anemones), sea pens, black coral and fire coral.
- Polychaeta are the bristleworms. These include feather duster worms, terrebeldid/spaghetti/medusa worms, peanut worms, lug worms and fireworms (whether you want them or not).
- Crinoidea are the Feather Stars. I don't know why these animals would have been singled out of all the echinoderms (sea urchins, star fish, cucumbers) and I wouldn't have thought that many people would even have bothered collecting them, but hey, what do I know.
- Ascidiacea are the sea squirts or tunicates.
- The phyla Bryozoa and Porifera are the sea moss and sponges, respectively.

The intention of Fisheries is to stop us collecting live rock and corals. While they do have jurisdiction over corals, it appears that they have no jurisdiction over rock. In order to stop us collecting the rock, they have prohibited the collection of the animals on and within the rock itself. This explains why classes and phyla of animals that would never be specifically collected by hobbyists, have been included in the list of those prohibited.

There are further reaching implications, though. Not only will this prohibit the collection of rock and coral, but also the collection of live sand as this is always full of Polychaetes. Also, the collection of seawater or plankton is a potential breach of this order as the planktonic stage of any of the listed animals could be in the water or plankton collected (especially those from the class polychaeta).

While I doubt that the aim of this order is to stop people from collecting water, plankton or sand and despite the fact that Fisheries neither have the resources, knowledge or motivation to prosecute hobbyists over these potential breaches, you can never be too sure. I would suggest collecting water during the day when the zooplankton level is lowest and therefore you are least likely to potentially breach this order.

(Please note that I have little formal legal education, so take my advice only as that of a layman. If you wish to personally test this legislative order by continuing recreational collection of the above mentioned animals, please seek professional legal counsel first. Please also be aware that if you, or a commercial entity you are in control of, is convicted of an offence under the Fisheries Act, it **may** be cause for expulsion from MASWA.)

Fisheries will be asking MASWA for input into this legislation in the next month or two and our concerns will be brought up with them. We will be asking for written confirmation one way or the other in regards to these concerns. Several ideas were also put forward by members to give to Fisheries, such as a limit of 40kg per person per day for live rock, a collecting licence issued by Fisheries for a fee (similar to that needed when collecting Crayfish) or perhaps a requirement to belong to a marine aquarium society such as MASWA before being allowed to participate in recreational collection.

COMMERCIAL CORAL COLLECTION ON THE GREAT BARRIER REEF

By Dallas Warren – President of Marine Aquarium Society of Australia

Good news. As things currently stand, and as information filters through, it appears that Senator Hill has changed his stance on the issue of the closure of the Great Barrier Reef World Heritage Area coral fishery. As of yet there has been no official release from his department on the issue, but it has been reported in *The Australian* and on the ABC news last week.

Thanks should go out to the pivotal person involved in this campaign, Roslyn Paterson the Secretary of the Queensland Aquarium Supply Divers Association (QASDA). She has acted as the campaign manager and has spent a lot of time contacting people, writing material and stirring up support.

Following is a copy of Warren Entsch's Media Release on the outcome of the coral harvesting discussion dated 26 September 2001. (Entsch is the Federal Liberal Member for Leichhardt - Cairns)

Entsch praises 'sensible outcome' on coral harvesting

Member for Leichhardt Warren Entsch today welcomed the resolution of a dispute over the future of coral harvesting on the Great Barrier Reef. "I'm delighted the Federal Government has listened to the concerns of our community and has made an informed and balanced decision."

"I congratulate the Prime Minister, John Howard, for his personal involvement in this matter and his decisive leadership to achieve a sensible outcome that protects jobs in Far North Queensland and also protects the sensitive Barrier Reef environment," Mr Entsch said.

"The commercial harvesting of coral is an environmentally sustainable activity which forms a small but important part of the local Far North Queensland economy." "The decision to allow the industry to continue will give coral farmers and aquarium suppliers the certainty to continue to invest in the Cairns region."

Mr Entsch said coral harvesting activities would be allowed to continue subject to the finalisation of a Commonwealth approved management plan which takes into account both the need for sustainability and the Marine Park's world heritage values.

There will also be a moratorium on the issuing of new permits until a management plan has been finalised, along with a reduction in the total allowable annual harvest to its current level of about 50 tonnes, down from the current permitted harvest level of about 200 tonnes - much of which is presently unused.

"These conditions are acceptable to coral harvesters who recognise that the safe and sustainable collection of coral and other marine resources is vital to their own futures." Mr Entsch said. "Steps will also be taken to ensure that the management plan to be finalised in consultation with the Queensland government and coral harvesting industry is appropriately enforced."

PERCULA? OCERLARIS? WHAT'S THE DIFFERENCE?

By Nathan Cope

Some people don't give a damn if they can tell the difference between Perculas and Ocellaris – they choose their fish by picking the ones that look the nicest anyway. Some others think they can tell the difference between the two species, but are incorrect - they pass this "skill" on to others who are then also able to 100% incorrectly identify the two species. Then there are the few who actually do know how to identify the species. They are usually the scientific sorts or the type that are really into their fish.

But is it necessary to know the difference, anyway? Well, I'm the sort of person who likes to categorise and label things correctly and if you think like me, then you are bound to say "yes", but this is hardly a compelling reason.

Apart from attempting to stop the perpetuation of mis-information on how to identify these two species of fish, the only reason I can think of that would make it necessary to be sure of correct identification (outside of scientific circles) is when you are trying to get these fish to breed.

And the time comes when some advanced aquarists decide to push themselves just that little bit further and delve into the world of breeding marine fish. At some stage down this track, it may be necessary to have more than one breeding pair so that they can avoid genetic problems through inbreeding, or even to create hybrid colours and shapes. It is then necessary to know your Perculas from your Ocellaris because while it is possible for a mixed pair to lay eggs and attempt to fertilise them, these eggs will always be sterile. This is, in fact, one way to tell if two similar looking animals are actually separate species.

So, for those who may want to breed these two clown species, those who, like me, pigeon-hole everything, or for those who just love their fish, I've put together a definitive guide to telling the difference between the two species.

First of all, lets look at the differences in distribution and host anemone species:

Western Clownfish <i>Amphiprion ocellaris</i>	Eastern Clownfish <i>Amphiprion percula</i>
First identified in 1830 from specimens collected in Sumatra (one of the large islands of Indonesia) by Cuvier.	First identified in 1802 from specimens collected in New Britain (now part of Papua New Guinea) by Lacepede who placed it in the genus <i>Lutjanus</i> (which includes snapper, bass and jacks!).
Distribution The two species do not overlap in range – in fact, although both species are found in northern Australian waters, neither species is found anywhere along our north coast from Darwin across the Gulf of Carpentaria to Cape York.	
Andaman and Nicobar Islands (Andaman Sea), Indo-Malayan Archipelago, Philippines, northwestern Australia from Exmouth round to Darwin, coast of Southeast Asia northwards to the Ryukyu Islands.	Northern Queensland from Mackay to Cape Melville (not even as far north as Cape York!) and Melanesia (New Guinea, New Britain, New Ireland, Solomon Islands and Vanuatu).
Host Anemone Species	
Magnificent Sea Anemone <i>Heteractis magnifica</i>	Magnificent Sea Anemone <i>Heteractis magnifica</i>
Gigantic Sea Anemone <i>Stichodactyla gigantea</i>	Gigantic Sea Anemone <i>Stichodactyla gigantea</i>
Mertens' Sea Anemone <i>Stichodactyla mertensii</i>	Leathery Sea Anemone <i>Heteractis crispata</i>

Now, here comes the part where you are able to look at the fish and instantly identify what species it is... well almost. There are three fairly distinct colour patterns among these two species - one pattern is only found in one species, one is only found in the other species but unfortunately, the third pattern is found in both species and is quite common. For the latter you really need to look at the dorsal fin in detail to make a distinction. Here is a table of the patterns and dorsal fin identification:

Western Clownfish <i>Amphiprion ocellaris</i>	Eastern Clownfish <i>Amphiprion percula</i>
Distinct Colourations	
Body entirely blackish except for the white bars. This colour pattern is relatively rare and is only found in specimens from around Darwin.	Distinct, heavy black outlining to the white bars. The outlining may sometimes be greatly expanded. This colour pattern is only found in specimens from around Melanesia.
Common Colouration White bars have very thin, almost indistinct black outlining.	
From northwestern Australia and Indo-Malayan Archipelago through to Japan.	From Melanesia and Queensland.
Dorsal Fin	
11 (rarely 10) dorsal spines. Tall spinous (front) dorsal fin. Height of spinous (front) part of the dorsal fin would only fit 2.1 to 2.9 times into the length of the fish's head.	10 (rarely 9) dorsal spines Short spinous (front) dorsal fin. Height of spinous (front) part of the dorsal fin would fit 3.1 to 3.3 times into the length of the fish's head.

Well, I'm sure this has at least made you think twice now before identifying your clowns. Hopefully it has also cleared up any confusion you previously had and given you more insight into the habits and distribution of these little fish.

Upcoming Meetings

October 31st : **Sid Harrison**
9 Wilberforce Street
North Beach
November 28th : AQWA
December 19th : Nathan Cope
January 2002.....
February 2002

MASWA's World Wide Web address

The web address:
<http://www.i-focas.ic24.net/maswa/index.html>

General Inquiries

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Treasury Inquiries

To Paul Tayler
Phone on (08) 9381 7827 a/h or 0419 90 8264 b/h

MASWA Membership

Currently MASWA requests an annual \$22 donation from adult members, \$11 from 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

Tom Devilee, Jan Anderson, Lissa Beaufond, David Bloch, Darren & Raqual Collins, Nathan Cope, Andy Dolphin, Tony Fiorentino, Paul Groves, Sid Harrison, Robert Harwood, Simon Hawke, Frank & Ben Krause, David Lee, Grant Magill, Phil & Caron Melvin, Wayne Mothershaw, John Ryan, Phil Searle, Ronald Tan, Paul Tayler, 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, David Bloch. Remember, this is your newsletter.