

MASWA Newsletter

(August 2001)

ATTENTION: This months MASWA meeting is on **Wednesday, 29th August**. Check your calendar, because it could be the day you receive this!!!

THIS MONTH'S MEETING

This months meeting is to be held at the house of Darren and Raqual Collins. Last time we saw their tank it was at their old house so it will be interesting to see how the tank has changed since the move. Trying to make this as hard as possible, Darren's new house is almost impossible to find! His address is **Lot 8 Amherst Road Canning Vale**. Enclosed with this newsletter is a map to help us find it! Please look at the map as we don't want any fights at the meeting when people arrive 2 hours late and very cranky from driving around in circles all night! At this month's meeting I will be demonstrating the brutal art of fragging and gluing (making cuttings ☺) *Acropora sp.* corals. If u are interested in trying an *Acropora sp.* frag in your tank then this is your chance to get one to try.

LAST MONTH'S MEETING

By Nathan Cope

Last month's meeting was at the residence of Wayne Mothershaw. Wayne's aquarium is fairly newly set up and far from finished going on what Wayne says he has in store for it in the near to middling future. New reef aquariums are always easy targets for criticism because by their very nature, things are up and down all over the place while the ecosystem is settling in. Wayne's tank, despite all this, appeared fairly stable. There was a little bit of an algae problem on the live rock, but this is fairly par for the course with new tanks. Wayne's tank's dimensions are 6' long, 3' high and 2' wide and it was viewable from both sides. Wayne says the aquarium system holds approximately 800 litres including the sump under the tank and he changes around 500L per month. The aquarium is lit by 6 x 4' fluorescent bulbs - 3 are triphosphors and 3 actinics. Water movement is via one 1000 L/h and two 2000 L/h powerheads inside the main tank, while a Laguna 4 recirculates the water back up from the sump. The water movement in the tank is very good and I think most corals would be very happy with it. There were some corallimorphs right in the middle of possibly the strongest section of current, which didn't appear too happy about it, but Wayne is intending to rearrange everything soon, anyway, so will probably move them to a quieter part of the tank. In the sump is downdraft skimmer driven by another Laguna 4. As I said, Wayne's tank is still in the start up stage and he has been collecting the rock himself in order to reduce costs. Due to the current ban on recreational live rock and coral collection, he hasn't been able to completely fill his tank with rock yet, so there is still a fair bit of free space. Despite this, it was deceptive how many fish are actually in the tank because at any one time, probably half of them were swimming through the nooks and crannies in the rock. Wayne also has a reasonable number of corals for a new tank too, but considering there is roughly only 240W of fluorescent light over such a deep tank, some are not fairing as well as they could do with more intense lighting such as metal halides. To Wayne's credit, he did say that he was going to improve the lighting fairly soon. Overall, I would say, this was a nice system setup with definite potential for once Wayne has added the finishing touches.

NEWSFLASH

- Amongst the vast wealth of information in the online aquarium hobby a new website has surfaced. This website was put together by a group of international aquarists with an aim of finding a way to create new horizons for the aquarium hobby and industries. The result is the launch of The International Federation of Online Clubs and Aquatic Societies (IFOCAS). The web address for this site is: <http://www.i-focas.ic24.net>.

IFOCAS's aim is to support and encourage fishkeeping and the active promotion of this aim through assistance, communication and education. They are offering free webspace and assistance for clubs and we have taken up this offer. Our new web address is: <http://www.i-focas.ic24.net/maswa/index.html>.

- We still have not heard any new information in regard to the 12 month closure of amateur collection of corals. This closure by Fisheries WA was supposedly implemented a few months ago after incidents that occurred at Quobba, north of Carnarvon. As soon as any other information about this comes our way we will let you know.
- One of our talented gadget building members Sid Harrison, has over the last few been perfecting a simple and reliable wavemaker. He has already sold a few to AQWA and they are working really well. They have two channels and are fully adjustable for both pump run duration and dead time. If you are interested in purchasing one of these fantastic gadgets then please talk to the Sid at the forthcoming meeting.

COMMITTEE NEWS

Since the election of the MASWA committee two months ago, we have had our first meeting. Many good ideas came out and were discussed. Instead of boring you all with the minutes of the meeting in this newsletter we will be making them available for you to read at the forthcoming meeting at Darren's house. If you have any criticisms or good ideas for our society please feel free to mention them to any of the committee members. Remember this is your society – your input is essential!

We still require some skilled individuals to help out with some areas of the MASWA committee. These include a secretary, which is currently being taken on by myself along with the editor position and lastly a webmaster. We have the webspace but do require someone to help out with the page design and maintenance – any takers???

FRAGGING ACROPORAS

By David Bloch

The art of propagating plants by taking cuttings has been practiced for many years and is in fact a very important part of the commercial plant propagation industry. Almost any coral, both hard and soft can too be propagated by this means. This process involves the cutting, breaking or severing of a branch or piece of coral and the attachment of it to a substrate via either an adhesive compound or by other means such as rubber bands. The exact method depends on the species but more importantly whether it is a hard or soft coral. In the article I will be discussing the propagation or "fragging" of a genus of hard corals known as Acropora. This information however will be relevant to almost any coral that has branches or divisions of some form or other.

So why would we want to propagate our corals? This question is often asked by new reef aquarists but the answer is quite simple. Firstly it gives you a great sense of achievement because if your corals have grown to the point where you have to reduce their size by pruning then you are obviously doing something right! Secondly it gives you the chance to give away or swap with other people genetically identical fragments of corals that are growing well in captivity. This is a good thing as it reduces the pressure on collection of wild populations of corals but also reduces the chance of loss of your favourite coral because you can have more than one colony of genetically the same coral in your own and other peoples aquarium. Lastly it is great fun!

So how do we go about propagating our Acropoid corals? The art of fragging Acropoid corals involves the breaking off or severing of a small piece of branch of the coral and the attachment of that fragment (hence the term fragging) to a small loose rock or a suitable spot in the aquarium with an appropriate adhesive.

- The first step is breaking off a piece of coral (fragging). This preferably should be done in the tank under the water but can be done out of the water if need be. The branch or piece of coral can be severed using a pair of pliers, side cutters, a hacksaw blade or even your fingers. The rule here is use whatever works for you and don't be afraid to experiment! Once you have a few coral frags they can be put in a small container of aquarium water ready for gluing either to a rock inside the tank or to some loose rocks.
- The next step is attaching the coral fragments to rocks. I prefer to glue my frags to small pieces of coral rubble so that I can move them around if need be and so that I can give them to friends etc. This doesn't mean that you can't glue them directly to your reef however. I have used both epoxy stick putty type adhesives as well as superglue and prefer to use the epoxy. The superglue works well but is very brittle and if you knock the frag it is likely to come off its rock. To start off with choose your site of attachment. It is better to glue a frag in a small hole the

same diameter as it if possible as it will hold much better. The epoxy stick putty I use is the Sellies Aqua-Kneadit (for underwater applications). I mix a small piece of the putty to uniform in colour then make a ball out of it about two to three times the diameter of the frag. I then push the frag about ½ cm into the ball of putty and then push the putty firmly into the hole in the rock. I then smooth the epoxy around the edges of the coral and rock and make sure that there are no gaps around the edge. The epoxy takes an hour or so to dry.

So what now? In the first week or so a little tissue recession from the area of the epoxy glue up may be seen – this is perfectly normal and is due to some of the coral tissue being covered with epoxy. After about two weeks the first growth should be seen. This will be obvious around where the epoxy and coral meet – the coral will begin to grow over the epoxy. Eventually most of the epoxy will be totally covered by the coral! At this stage the coral can either be left to grow large or swapped or given away. This is where the fun starts! When it comes down to it there is really nothing to fragging Acropoid corals – just give it a go and have some fun!

FIN FUNCTIONS

By Nathan Cope

Why do fish have so many different fins, why are there so many different fin shapes and why do fin positions vary from species to species? Fins obviously help a fish move, but their shape and position determines how quickly the fish can move and allows fish to specialise in certain ecological niches. There are three types of single or median fins - the dorsal, anal and caudal - and two types of paired fins the pectoral and pelvic fins. This article attempts to answer the more basic questions about what all these fins do.

Caudal fin

“Caudal” is Latin for “tail”, so this is the tail fin. It provides forward thrust and acceleration. There are many different shapes of tail fin and the shape is a good indicator of how fast the species of fish moves. A forked tail fin reduces drag as the water passes the body, so this type of tail is often found on fast moving fish, eg, tuna. A straight-edged tail is for slower moving fish and generally the more rounded or less distinct the tail shape is, the slower the species moves. The narrow caudal peduncle (Latin for “little foot”) between the tail fin and the body contains the muscles that power the tail movement. This small “bridge” also minimises recoil from the side-to-side body movement created by the tail.

Dorsal Fin

Dorsal fins are the ones on top of the fish and are generally positioned towards the front of the body. Some species have one, some have several (a small second dorsal fin is technically called an adipose fin) and some have a continuous one that goes all the way from the front to the back of the body. Very few species have no dorsal fin. Their function is generally the same as the anal fins (see below) but some species have spines or venomous rays in their dorsal fins and use them for defence. Some other species have modified these rays to act as wedges to hold themselves in place in the rocks to avoid predation (triggerfish and leatherjackets) or to reduce the amount of energy expended when trying to stay in one place (such as catfish in fast flowing rivers).

Anal Fins

You can probably guess the location of the anal fin. In some species it is tiny or non-existent but this is rare.

Both dorsal and anal fins are very important to fish because they play two very important roles in helping a fish to move around:

1. Stabilisation – they stop the fish from unintentionally moving left or right as it swims forward or backward. Likewise, the fish’s body is stopped from rolling or rotating from side to side.
2. Steering - the fins act like a rudder and assist in altering and maintaining course.

Some fish such as the triggerfish also use these two fins to provide their general propulsive power, although their tail-fin does all the work when sudden speed is needed.

Pectoral Fins

These fins are always paired and usually located right behind the gills. Some people have difficulty determining which pair of fins are the pectorals and which are the pelvic fins. It is easy to work out if you remember that the pectoral fins (which can be likened to our arms - think of our pectoral or chest muscles which are used to move our arms) are always located either above or forward - sometimes both - of the pelvic fins (which can be likened to our legs - think of our pelvis or hip bones being connected to our legs).

The function of pectoral fins can vary quite a bit from species to species:

- Set low angled, as on sharks, these two fins provide lift;
- Set high and forward, as on snappers, they act as brakes;
- Set low and rigid, they act as props in bottom-dwelling fishes;
- For many relatively slow-moving, grazing fish, pectoral fins move the fish forwards or backwards by using a rowing motion.

On this last point, many wrasses have modified the rowing movement for more rapid propulsion into a more powerful and speedy flapping motion. Wrasses look much like a bird flying when they flap their pectoral fins. Incidentally, penguins swim underwater by flapping their wings and the movements of the wrasse are not dissimilar.

Pelvic/Ventral fins

Pelvic fins may be positioned anywhere from the throat to the abdomen. It is this reason that they are sometimes referred to by different names; Anterior, Ventral and Posterior fins. Sometimes ventral pelvic fins are fused with the anal fin, in which case they are used for propulsion, but usually, these paired fins help to counteract pitching – the tendency of the head to be directed up or down. They can also be used as brakes and assist in small movements and holding position. A number of fish (for example, some butterfly species) have elongated rays or filaments extending from their pelvic fins and these are used as tactile receptors.

MAP TO MEETING AT DARREN'S HOUSE

<p>Upcoming Meetings</p> <p>August 29th Darren Collins Lot 8 Amherst Road, Canning Vale (see map)</p> <p>September 26th : Tom Devilee October 31st : ? November 28th : AQWA????????? December 19th : Nathan Cope</p> <p>MASWA's World Wide Web address The web address: http://www.i-focas.ic24.net/maswa/index.html</p> <p>General Inquiries To Nathan Cope E-mail address: nathan.cope@flexiplan.com Phone: (08) 9367 9251 a/h or 0416 09 2000 b/h</p> <p>Membership and Newsletter Inquiries To David Bloch E-mail address: aquatech@iinet.net.au Phone: (08) 9375 2438 a/h or 0412 07 9886 b/h</p> <p>Treasury Inquiries To Paul Tayler Phone on (08) 9381 7827 a/h or 0419 90 8264 b/h</p>	<p>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.</p> <p>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.</p> <p>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.</p> <p><i>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.</i></p>
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