

Fish & Chips

A Monthly Marine Newsletter

January 1999 Issue

From Us

By Elizabeth M. Lukan 1/15/99

This issue of Fish & Chips contains a number of first time events. As described in more detail below, we are now offering Hobbyist Skimmer Reviews. Besides the skimmer reviews, this issue also includes an article on propagating leather and soft branched corals by Mark Taber. This notes the first time I am working jointly with other hobbyists. It is proving to me that my little newsletter is doing some good and that others may be thinking the same. I must admit that it was a pleasure to work with both Ian and Mark. They are truly dedicated to the hobby.

I am very proud to announce the inclusion of **Hobbyist Skimmer Reviews** as part of Fish & Chips. These reviews are being published here through a joint venture with Ian McDonald (aka IANsSnakes) and myself. Ian and I have worked very hard to find a way in which to publish these reviews in article format and still maintain the originality of the reviewer. I believe we have succeeded and I hope you think so too. I look forward to publishing many more of these reviews.

Ian obtains the reviews via a survey he is conducting and he could really use your help. So, if you've got a skimmer (and everybody should!) and would like to participate, please check out Ian's survey page at <http://www.geocities.com/heartland/prairie/2196/Survey.html> (**information updated 4/19/00: survey closed**). He really needs more reviews submitted or else he won't be able to come out with the fantastic final survey results he's planning. So, let's give him a helping hand, ok?

The Propagation of Leather Corals & Soft Branched Corals article by Mark Taber is the first time an author besides myself has contributed to Fish & Chips. I am very happy that Mark is that author. This article was also recently published in the United Kingdom magazine Practical Fish Keeping. Not only is Mark a fantastic author, he is so dedicated to the hobby that he is spearheading setting up a website with the high goal of passing on as much free information on the marine hobby to UK hobbyists as he possibly can.

Mark and I are also in the initial planning stages of getting Fish & Chips on his new website. This is very exciting. As you know we've wanted to do a page ourselves but never seem to find the time to work on it. I'm betting that Mark's is done before ours - oh well!

Mark has already forwarded me another of his articles and I look forward to publishing that one in an upcoming issue. The upcoming article is about marine fish unsuitable for captivity and it looks great!

January also debuts the **Caught In The Net** section of Fish & Chips. I am starting off small with this section as I am undecided about it's future. I have already written a review of someone's webpage but have avoided publishing it as the debut article for the section. Instead, I have decided to go with a small listing of online sites that sell hermits and snails. Check it out and let me know what you think.

And our final debut for the month is a tip section called **Chips...er...Tips**. I'm hoping to offer tips for everybody, but in particular, for those just starting out. I'd like to offer bits of wisdom from the more experienced hobbyists and am sending out a call for anyone wishing to help out his or her fellow hobbyist. Just send an email with your tip and note if it's okay to include your name and email address, anonymous is okay too. There's only so many tips I'm going to be able to come up with or get the okay to reprint from books and online sites, so please lend a hand if you can. Any and

all welcome!

Fish & Chips currently has over 180 subscribers. Not bad for a newsletter only just sending out it's third issue. Thanks everybody, you are all wonderful!

After all this good news, I am sorry to report that I do not think I will be able to bring you an Upcoming Events section as I had hoped to. My hope was to offer February events in the January issue and so on. These events would cover local, national, international, and online events. I posted over 10 emails to groups or sites. I only received one no and one yes, but the yes didn't email me the events. I was ignored elsewhere. I will post on a few more places as I come across sites that have message boards, but don't hold much hope of getting any takers. Sorry folks.

CPR Bak-Pak 2

- A Hobbyist Skimmer Review -

General Information:

All ratings are 1 through 10 (10 being the best or yes, 1 being the worst or no). The items in parentheses are only given as a more detailed explanation and to give you an idea of what was meant by the category. Permission to publish these reviews was obtained through a clause in the survey. See the end of this article for review, survey, and article credits.

Construction Quality (Acrylic thickness, polish, glue job, etc.):

Score: 8 **Comments:** Being hand crafted, the Bak-Pak is made up of top quality acrylic plastic. It is really thick and will last a long time. It is not flimsy at all and seems very sturdy. The only fault I have found is that I have encountered leaks where the input and output tube meets the acrylic. This can be fixed but I unknowingly adjusted the output tube and found a big puddle on my floor a few hours later.

Aesthetic Quality (Does it look good, etc.):

Score: 10 **Comments:** It looks good I guess...

Performance (Does it keep your water clean, must you adjust it all the time, etc.):

Score: 10 **Comments:** It skims out gunk everyday. My water quality seems a lot better after I put it in.

Foaming (Does it do it consistently, is it nice and thick, is it dark, etc.):

Score: 9 **Comments:** The foam is dark green and sticks to the top of the collection cup. It smells too.

Ease Of Installation:

Score: 10 **Comments:** It is the easiest to install. Just hang on the back and plug it in.

Would you buy it again?:

Comments: Yes

Electrical Efficiency (Does the pump it uses work well, etc.):

Comments: I don't know.

Plankton Level (Do you have a lot, etc.):



Comments: I have noticed a lot of copepods living inside the output section of the Bak-Pak.

Overall Value (Did you get what you paid for, etc.):

Score: 10 **Comments:** I got mine for dirt cheap (\$99). So yeah, it was a great value.

Overall Satisfaction (Do you like it, etc.):

Comments: The only thing I hate about this thing is the amount of bubbles you get into your tank. And, it is not like the bubbles are coming from the venturi valve. The bubbles come from the output tube! Air is sucked into the output tube because the water level doesn't completely cover it. I have fixed it somewhat by directing the output tube to the side and diagonally up so the output hole sticks up out of the water. I think this is a design flaw. Other than that, it skims really well.

Comments:

The optional surface skimmer does what it's supposed to do. I also got rid of the bio-bale and put activated carbon, a phosphate sponge, and heater in there.

Review, Survey, and Article Credits:

Review by Phillip Quindara, 11/24/98

Survey created and hosted by Ian McDonald (IANsSnakes@aol.com)

Home Page: <http://members.aol.com/IANsSnakes/index.html> (**information updated 4/19/00: survey closed**)

Survey Page: <http://www.geocities.com/heartland/prairie/2196/Survey.html> (**information updated 4/19/00: survey closed**)

Ian would like to extend his thanks to Chris Paris (aka Cap) and Steve Wolfe (aka NerveGas) for all their assistance in getting the survey going.

Article edited by Elizabeth M. Lukan, 1/15/99. Editing was limited to spelling corrections and some grammar (capitalizing the beginning of a sentence, adding a period at the end, etc.). No other editing was done, what you read was exactly what was sent to Ian by the reviewer.

Editor's Comments:

The CPR Bak-Pak 2 is a product of Creative Plastic Research. As mentioned, the above review was done by a fellow hobbyist and if you would like further information (product specifications, etc.) on it, it can be found on the Creative Plastic Research website (www.cprusa.com). The CPR Bak-Pak 2 can be found for purchase on many websites (Reef Fanatic www.reef-fanatic.com (*url dead 10/03/05*)), in mail-order catalogs (That Fish Place www.thatpetplace.com), and in your local fish stores. It is usually priced in the range of \$150.00, cheaper via mail-order, cheaper still via websites. Please note that the websites and mail-order names I have provided here are only two possible places to purchase this product. Their inclusion here is not a recommendation and are provided only to get started searching for the product if you are interested in it. In fact, I have never done business with Reef Fanatic and do not do business with That Fish Place.

Photo Credits:

The Bak-Pak 2 image was obtained from Tom Mitchell, General Manager of Creative Plastic Research with his permission to use the image in this article. Thanks also to Ted Robinson at CPR Technical Support (cpr@cprusa.com) for his help in dealing with me regarding getting an image for my article. CPR's only requirement for permission was a copy of this article prior to it's publication, which was submitted to them via email on 1/6/99. Thanks go to Tom, Ted and CPR overall for helping me get a great picture of the Bak-Pak 2.

The Propagation Of Leather Corals & Soft Branched Corals

by Mark Taber

Introduction

Before I begin, let me first start by saying that you do not need to be a Marine Biologist or Rocket Scientist to propagate most soft corals. Taking cuttings from these types of corals is extremely easy and I encourage as many people to do this as possible.

The following information is based on my own experiences on making cuttings and I have tried to write it in such a way that for anyone who has never propagated soft corals before, can read this and get started immediately. I apologize now to those of you who have been doing this for years, as I am sure I will be going over old ground.

I would like to point out that I take no responsibility over the corals you cut, all I can say is that what I have written here has worked for me (that's my get out clause).

As a note, when I mention Soft-Branched corals, I include Cladiella, Alcyonium and Nephthea. When Leather corals are mentioned, they include Sarcophyton, Sinularia and Lobophytum.

Preserving the Reefs

Like so many of us I am concerned at the amount of fish and corals we are removing from the reefs and believe we, the hobby, should do all we can to reduce this. It is my opinion that we should try to propagate as many different corals and breed as many species of fish that is feasibly possible. Every cutting that we either give away or sell to a friend is one less coral removed from a reef. Reading articles in books and on the Internet amazes me of the different corals that have been propagating by the hobby, which just goes to show what the hobby has already achieved but I do feel we should do more. It is all too easy to say "The reefs can sustain what we remove" but it is the hobby that I believe will be targeted before others. Restricting imports of corals for resale is an easy argument but stopping a multinational company building a hotel on a beach is a little harder. If we can reduce the quantity now, eventually people will focus on the actual problem and not on easy targets like the hobby.

Water Quality

I have listed my water quality but I really do not want to get into the conversation on what levels the water quality should be as this seems to be a subject of its own. What I will say is that obviously there should not be any traces of Ammonia, Nitrite and Nitrate. In addition, Alkalinity, pH and Calcium levels should also be at their recommended levels. Obviously for anyone keeping a reef tank then this should not be problem, however it is worth testing your water before taking a cutting just in case something is not at its normal level. This will help the new cutting establish itself without having to fight against toxic/semi toxic traces. For reference, I use Salifert test kits.

Temp S.G pH Ammonia Nitrite Nitrate Calcium Alkalinity Phosphates Silicates

78f - 80f	1.023	8.1- 8.3	0mg/L	0mg/L	<1ppm	390ppm 420ppm	2.8mg/L	0ppm	0ppm
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Makeup Water

One to Two days before taking a cutting, I make up some replacement saltwater and within a few hours after taking a cutting, I change about 5% of the water. I do not think this is absolutely necessary but when you cut the main coral it will release a certain amount of mucus. I am not sure how toxic this mucus is to other corals nearby but changing some of the water may help to dissolve it. As I continue to take more and more cuttings, I believe that the skimmer can deal with this but it is something to be aware of.

Rock Attachment

Obviously, you will need something to attach the cutting to once you have made the cut from the main coral, otherwise it will just float around in your tank forever and a day. I use small pieces of ocean rock about 1" to 2" square for this and have also used dead pieces of coral stone. I believe that these corals will grow onto any reef safe object if attached correctly. The cutting will normally take about one and a half weeks to attach to the rock so you will need something to hold it in place in the meantime. Rubber bands seem to be the easiest to use for Soft-Branched corals but I am not completely satisfied with this solution, as I will explain in a moment. At this stage, put the rubber band around the rock but ensure that there is enough give between the band and the rock to hold the cutting securely. For Leather corals, place the rubber band tightly around the rock, as you will not be using this to hold the coral directly.

It is quite hard to get the rubber band to apply the right amount of pressure without splitting Soft-Branched corals into two. Either that or it is too loose and the water flow eventually forces the cutting to escape from the rock. A little practice and you will soon learn how loose the rubber band can be.

Cutters & Other Accessories

By what I have read, the best way to take cuttings is to use a sharp scalpel as this will ensure that you slice the coral quickly and cleanly. This solution is fine for Leather corals but I have had no joy using scalpels to cut Soft-Branched corals. What I found was, because the coral is so soft, the coral branches just move away when you apply any type of pressure to them. I even tried holding one end of a branch with one hand while using the other to make the cut. This did not work at all and it applies unnecessary stress to the coral. For Soft-Branched corals, I use a very sharp pair of scissors.

Other accessories you will need are a small glass bowl filled with some of your aquarium water and a toothpick, which is required for attaching the Leather corals to the rock.

At this stage, fill the bowl with aquarium water and place the rock with the rubber band attached, into the bowl.

Cutting Corals

Now that you have made some makeup water, tested the water quality, prepared the rock that will hold the cutting, all that is left to do is make a cut. Now this is where you start to have doubts but at the end of the day, it is the only way you will propagate your coral.

Before considering taking a cutting of any coral, ensure that the coral is in good health. If for some reason the polyps have remained closed that day, put off cutting the coral for a few days to ensure everything is OK.

As soon as you take a cutting from the desired coral, the cutting and the coral will close up and shrink down in size, which is to be expected.

Cutting Soft-Branched Corals

Select a small branch that has 2 or 3 other small branches growing from it. It does not matter how big the branch is that you choose but I always choose one that is about 2" to 3" in length. This will allow you to take plenty of other cuttings in future without hacking the coral to pieces. In addition, the cutting will grow quickly so that 2" cutting will soon be 6" to 8" in a few weeks time. One thing that I am unsure of is the consequences of continually cutting the same coral so maybe someone would like to email me and comment on this further. I have made numerous cuttings from my Cladiella and the damn thing still continually tries to outgrow my tank.

Place the open scissors around the branch you have selected aligning them about ½" from where that branch is growing from the main coral. Quickly and precisely, cut the coral with the scissors. You want to ensure it only takes one attempt to cut the coral as this will guarantee you have a clean cut. The main coral will probably curl up into a ball, similar to how it does at night. Generally, it will only take a few hours for the main coral to open again. You will notice some mucus being excreted out of the base of the cutting and also where the cut was made on the main coral. Don't worry as this is quite normal.

Remove the cutting from main tank into the bowl of aquarium water. Do not worry about exposing the coral to air, as this brief encounter will not harm the coral.

Cutting Leather Corals

If the Leather is a Finger Leather coral, you can use the same method as described in the section "Cutting Soft Branched Corals". As mentioned already in this section, I suggest cutting a small section of the coral. Again, after you have made the cut, remove the cutting and place it in the bowl of aquarium water.

Cutting things like Mushroom Leathers (*Sarcophyton* sp.) are a little more tricky. Saying that, I have been extremely lucky with mine as it literally ripped the top part off itself. All I had to do was cut the very small piece that was holding it onto the main coral with a scalpel. It is quite common for these types of corals to self propagate in this manner and is considered as a form of asexual reproduction.

If however you do not have the same luck as I have had then slice a small cut from the top center of the coral out to the edge. Then do the same but leave a 1" gap from the last cut. Imagine a round cake and you wish to cut a slice for yourself. That is exactly the way you cut the coral but do not cut all the way through the coral. What you want is for the coral to slowly split apart the section you have just cut. This may take several days and even weeks and you may need to assist with a deeper cut along your original cut. Make sure you leave plenty of time for the coral to recover before making another cut.

Once most of the cutting has split away from the main coral, make the last cut to completely detach it. Remove the cutting and place it in the bowl of aquarium water.

Attaching Soft-Branched Corals

As mentioned before, the coral cuttings will need something to attach to so this is where the small 1" square rock, and the rubber band comes in. Take the cutting from the bowl and ease about a quarter to half of an inch of the cuttings base through the rubber band. I do this while keeping the cutting out of the water as I find the coral less slippery to work with. Try not to apply too much pressure to the cuttings base, as this will cause even more stress to the coral. Also, if you are having trouble sliding the cutting under the rubber band, keep dipping the cutting in the bowl of water so it is kept moist. Once the cutting is securely attached to the rock and you have checked the rubber band is not too tight, place the cutting back into your main tank.

Attaching Leather Corals

When attaching Leather corals, you will still need the 1" square rock but unlike the Soft-Branched corals you will not be using the rubber band directly to attach the coral. Instead take the coral from the bowl and push a toothpick through the center of the cutting so about a quarter of the toothpick is still showing from the top. Push the base of the toothpick between the rock and the rubber band so the base of the cutting is firmly touching the rock. Once the cutting is securely attached to the rock, place the cutting back into your main tank.

Cutting Placement

When the cutting is back in the main tank, place the cutting on the bottom of the tank directly below the lighting and in good water flow. I have found that placing these cuttings in the direct path of a pump prevents them from opening. If the pump is at one end of the tank, try placing the cutting half to three quarters way up the tank. This provides enough flow to stimulate the cutting and remove any outer skin it may decide to shed. The cutting should start to open within 4 hours (approx.). Within 24 hours, both the main coral and the cutting should look as though nothing has ever happened to them.

One more thing to watch out for, do not place the rock near another rock in your tank, as the cutting will also grow onto that rock as well.

Soft-Branched Coral Growth

I generally leave the cutting alone for one and a half weeks before checking if the cutting has grown onto the rock. These cuttings generally attach within one week. If left much longer, the Soft-Branched corals will start to grow onto the rubber band.

To remove the rubber band, pick up the rock with the cutting attached and slowly ease the rubber band from the coral. Be careful not to pull the rubber band too quickly as it will pull the cutting from the rock. As you lift the band, you should be able to see the cutting has grown onto the rock. Completely remove the band but do so very carefully as although the cutting will have attached, it has only just started to grow onto the rock and will require a few more weeks before fully attaching itself.

Leather Coral Growth

I have found that Leather corals attach in 2-5 days but leave about one week before removing the toothpick so you do not disturb the cutting. To remove the toothpick, pick up the rock with the cutting attached and slowly ease the toothpick back out of the cutting the opposite way it went in. Again, as with the Soft-Branched corals, be very careful

not to pull the cutting away from its rock. Once the toothpick is removed, remove the rubber band from the rock.

Final Stage

When placing the coral back in the main take, position the cutting a little further away from the pump just to make sure the flow does not pull the cutting from the rock. Leave the cutting undisturbed for another three to four weeks before moving them from your tank. This will give them plenty of time to establish themselves. You should see quite a bit of growth from the cutting in the first few weeks.

Close

I have only been in the hobby for just over a year and I have managed to take quite a number of cuttings from three different corals so if I can do it, anyone can. I believe that most people can do this and it really is this easy. As I progress onto different types of corals, I will keep updating this document and share my experiences but my next challenge is breeding the two Clown fish I have. Somehow, I do not believe this will be as easy so if anyone has bred Clowns, please email me a few tips.

Well that is all there is to it. If you have any questions on this please email me at mttaber@msn.com and I will try my best to answer your questions.

Regards

Mark Taber

Caught In The Net By Elizabeth M. Lukan 1/14/99

The following list contains websites that sell hermits and snails.

Each site was checked by me personally so any errors are entirely mine. This includes any omission of sites - I checked those I knew or those I could find links to.

Hermits & Snails

Date Checked	Site Name	Web Address	Notes
1/12/99	Geothermal Aquaculture Research Foundation	www.garf.org	
1/12/99	Harbor Aquatics	www.harboraquatics.com (<i>url dead, 10/02/05</i>)	

1/12/99	Harspen Marine Fish	http://hosting.soonet.ca/harspen/ (site gone, updated 10/02/05)	Serving Canada. Prices are in Canadian.
1/12/99	Indo-Pacific Sea Farms	www.ipsf.com	Snails only.
1/12/99	Jeff's Exotic Fish	www.exoticfish.com	Snails only.
1/12/99	Marine Depot	www.marinedepot.com	
1/12/99	Premium Aquatics	www.premiumaquatics.com	
1/12/99	Reefers	www.acropora.com (<i>url dead 10/03/05</i>)	
1/12/99	Tampa Bay Saltwater	www.tbsaltwater.com	

Please let me know if you like this type of site list breakdown. Maintaining this type of list could turn into a job in itself and I don't want to undertake it if nobody is interested. I am willing to expand this listing and have already gathered some sites and broken them down by clams, corals, fish, other inverts, live rock, live sand, books, hardware, food, etc. I would not publish the entire list in each issue, but would include a portion of the list as I have done above with hermits and snails. I would also publish updates or additions to the list. I could also offer to email the entire list to those interested - the list is maintained in Microsoft Word 97. But, I will only do this if you tell me you like it and I should continue. So, please drop me a note.

Chips...er...Tips

By Elizabeth M. Lukan 1/15/99

Never use chemicals to clean the outside of your tank or the inside of an empty tank either. Commercial products like Windex, Fantastic, Pledge, etc., contain chemicals like bleach, ammonia, and so on, that can, and most likely will, kill everything in your tank. Instead, purchase a refillable spray bottle (the kind used to mist plants) and use water and paper towels. I don't even use commercial products on my tank stand - it's just too close for my sake.

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