

Fish 'N' Chips

A Monthly Marine Newsletter
March 2001 Issue

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From Liz

By Elizabeth M. Lukan 3/12/01

Visit This Month's Subscriber's Tank Showcase

Dr. Badgett's Reef Tank is this month's Showcase and can be seen at <http://www.marinefiends.com/showcases.html> (*updated 8/24/04*).

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Doin' It Yourself!

Adding a sump to your Reef Tank

By Richard Clayton

Edited By Elizabeth M. Lukan, 3/12/01

Introduction

I found that after converting to metal halide lighting and upgrading to a large needle wheel skimmer the look of the tank in my front room was becoming unsightly.

A huge skimmer hanging off the side of the tank and various dosing bottles delivering all-important additives such as kalk "calcium hydroxide" was becoming too much to bear so I decided to construct a new twin door base in which I could place a homemade sump.

In the following article I have put forward some simple ideas to modify your existing tank into a sump based marine tank using basic carpentry and DIY skills and a few simple tools.

Tools required:

- Battery Drill
- handsaw
- workmate
- tape measure
- pencil
- hammer

Step 1 - Constructing a Cabinet

To construct my new cabinet I looked at how my existing one was put together and modified the design. The basic construction is little more than a box with doors.

I then set about getting the melamine chipboard cut to size by my local DIY chain store.

I used basic joints with doweling and wood glue to hold the unit together and brass hinges and magnetic catches hold the doors on.



The tank before any modifications having just been drained down. All glass 36 inch long by 15 deep by 18 high. Approx. 30 gallons. The tank as purchased had very little storage in the cabinets for pumps etc. There's no chance of getting a sump under there.

The new Cabinet

The new cabinet was starting to take shape. The front removable brace was double thickness allowing for the installation and removal of the sump. The height of the cabinet was calculated at 27 inches which gave ample room for installing the new Deltec ap600 Skimmer.



I could only find 15mm melamine board at my local DIY store. The usual thickness of shop brought tank stands of this size is 18mm. It didn't appear to be a problem on this tank but you may want to consider trying to obtain thicker boards or using more bracing.

The cabinet doors were fixed in place with brass hinges so as not to rust out later on. The fit was kept tight on the doors to help maintain a good noise seal.

The overall look of the cabinet was quite clean and symmetrical. And would do nothing to draw your eye away from the tank itself.



The back of the cabinet was closed off with white plastic coated hardboard I knew that I would have to drill several holes for the sump pipe work and electrical connections.

Drilling the tank

Unless you work in the glass industry you will probably have to get the tank drilled by a professional. This was certainly the case for me and I used Danny the proprietor of the Watford Aquarium. He also supplied the pipe work and fittings at a very reasonable price.



One thing worth considering is the use of an open top on the end of the pipe. This will stop any siphon action occurring in the event of a power cut. This is probably the most important factor when designing an overflow into a sump.

Avoiding sharp turns in pipe work generally helps flow and reduce noise. I used saltwater safe silicone sealant on my joints just in case I have to break the tank down but a lot of people recommend the use of the correct solvent for a more trouble free joint.

My overflow was just half way between the visible line of the water level and the upper level of the tank and this has proved to be fine so far.

Note: If the tank is going to be in your front room then be prepared for a bit of noise. Most tanks running sumps and skimmers and water running through open pipes will generate gurgling sounds and vibrations.

Making a sump

My design of a sump was to use an existing ten-gallon glass fish tank that I had lying around. You could also use any food grade plastic container that is of suitable thickness and strength and that has a suitable size for your equipment. There are also a number of Shop brought items available but these tend to be expensive and based around a trickle tower that seems to be out of vogue at the moment.



I glued in a glass separator panel to act as a pre filter, this would hold filter wool and carbon. The skimmer will be placed with its output near the main return pump, which isn't shown here.

Note: The extra water held in the sump will increase the overall capacity without changing the footprint of the tank.

Running up the tank for the first time it is important to adjust the return pump flow to set the height of the water level.

I found that there is a considerable difference between the return speed with plain water and salt water. The later returning much faster enabling a greater turn over of tank water per hour.



I have now been running with this set up for a couple of months and find that is not only aesthetically pleasing but any maintenance including dosing of additives water changes etc. is now much easier.

I can be contacted by email to richard.clayton@compaq.com if anyone would like any further information.

Editor's Note:

This article was originally published on the ReefsUK Website. ReefsUK can be found at <http://www.reefsuk.org/>. Special thanks to Mark Taber, owner of ReefsUK, and Richard Clayton for the permission to reprint the article. The extent of my editing of this article was reformatting it into Fish 'N' Chips.

Photo Credits:

The photos in this article were included with Richard's publication on ReefsUK and were used with the same permissions noted above.

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What's Up @ ReefsUK

- <http://www.reefsuk.org> -

By Elizabeth M. Lukan 3/16/01

3/6/01 - ReefsUK is looking for pictures to display in a new section of their site. There is no limit on the amount of pictures you can send but please limit the number sent in one email and be aware of the size of each image. Send the picture to post@reefsuk.org.

To join the ReefsUK Mailing List, send an email to post@reefsuk.org.

To join ReefsUK Chat (Email Discussion Group), visit the ReefsUK Website for instructions.

Editor's Comments:

Information in this section covers the latest happenings at Mark T. Taber's ReefsUK Web Site. Mark has given me permission to publish any information from his mailing list that I feel would be of interest to Fish 'N' Chips subscribers. So, the above, although reworded by me, should be credited to Mark or to Derek Scales who works closely with Mark on the running of ReefsUK. The dates in bold coincide with Mark or Derek's mailings and are provided as a reference.

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Caught In The Net

By Elizabeth M. Lukan 3/24/01

New Stuff Found

On Reefs.org (<http://www.reefs.org/>):

- Article "LPS Corals, Current and Expansion" by Various Authors
- Article "Wet or Dry Skimmer Foam?" by Various Authors
- Editorial "An Argument in Favor of the Regulation of the Marine Aquarium Hobby" by Charles Devito (**Note from Liz:** I do not know how long this will be on the site so read it while you can.)

#reefs moves to IRCstorm: #reefs, the chat network for Reefs.org (<http://www.reefs.org/>) has moved to the IRCstorm IRC network. They ask that everyone change the settings on their irc program.

Marine Related News

2/27/01 - UK, The UK wants the world's second largest marine fish, the basking shark (*Cetorhinus maximus*), protected from international trade because despite protection in UK waters their numbers are falling rapidly around the British Isles and elsewhere. The UK wants the basking shark listed on Appendix II of the Convention on International Trade in Endangered Species (CITES) which regulates the trade in vulnerable species by imposing a licensing system for imports and exports. The entire news release can be found at <http://ens-news.com/ens/feb2001/2001L-02-27-10.html> (*url dead 8/24/04*).

2/27/01 - US, The National Marine Fisheries Service (NMFS) has released a national voluntary plan of action for the conservation of sharks. The entire news release can be found at <http://ens.lycos.com/ens/feb2001/2001L-02-27-09.html> (*url dead 8/24/04*).

3/5/01 - US, An Anaheim, California man has pleaded guilty to participating in a conspiracy that took 100 tons of coral and live rock (with a wholesale value of well over \$1 million) from reefs off a Hawaiian island and shipped the protected species to the mainland. Coral and live rock are protected under Hawaiian law, and the interstate trafficking of these items constitutes a violation of the federal Lacey Act, which prohibits the interstate shipment of wildlife taken in violation of state law. The entire news release can be found at <http://ens-news.com/ens/>

mar2001/2001L-03-05-09.html (*url dead 8/24/04*).

3/5/01 - US, Ocean Journey, an aquarium in Denver, Colorado, has become the first inland Aquarium to join the Marine Fish Conservation Network (MFCN), a national coalition to conserve U.S. coastal fisheries. The entire news release can be found at <http://ens-news.com/ens/mar2001/2001L-03-05-09.html> (*url dead 8/24/04*).

3/7/01 - US, The Seagrass Outreach Partnership, a Florida Keys based coalition that includes local, state and federal agencies, conservation groups, and commercial and recreational fishing groups, got a helping hand taking their message statewide when Governor Jeb Bush acknowledged March as "Seagrass Awareness Month." The Partnership was formed in 1998 to bring awareness about the economic and ecological impacts that damaged seagrasses has on Florida. Seagrass is a flowering grass that lives underwater and can be found in estuaries, lagoons and shallow, open shelves off of Florida's coast. Seagrass provides habitat for Florida's large population of invertebrates and fishes, acts as a filtering system for nutrient runoff; and helps to stabilize bottom sediments. The entire news release can be found at <http://ens-news.com/ens/mar2001/2001L-03-07-09.html> (*url dead 8/24/04*).

3/7/01 - US, Studies funded by the Office of Naval Research (ONR) say that dredging up contaminated sediments could do more harm than good. Scientists funded by ONR have found evidence of a natural process called intrinsic bioremediation, in which native organisms in contaminated marine sediments can degrade or become a sink for hydrocarbons and other organic pollutants. The natural bacteria in the sediment - adapted by years of exposure to the problem - may be doing a clean up on their own, functioning as a filter within the ecosystem. The entire news release can be found at <http://ens-news.com/ens/mar2001/2001L-03-07-09.html> (*url dead 8/24/04*).

3/8/01 - UK, TRAFFIC has mapped out a new three year strategy to protect the most endangered wildlife and fragile ecosystems from predatory traders. Based in Cambridge, England, TRAFFIC is a branch of WWF (The Worldwide Fund for Nature) and IUCN (the World Conservation Union) that works in cooperation with the Secretariat of the Convention on International Trade in Endangered Species (CITES). In addition to many endangered land animals and plants, TRAFFIC will concentrate on policing the illegal trade in marine and freshwater turtles, tortoises, sturgeons and sharks. The entire news release can be found at <http://ens-news.com/ens/mar2001/2001L-03-08-01.html> (*url dead 8/24/04*).

3/19/01 - US, the United Nations Foundation is donating \$5 million to the United Nations Environment Programme (UNEP). The UNEP is hoping to reverse the decline of the world's coral reefs. The entire news release can be found at <http://ens-news.com/ens/mar2001/2001L-03-19-01.html> (*url dead 8/24/04*).

Fish 'N' Chips Fishy List

I will no longer publish portions of the site list within the issues. It takes up a great deal of issue space and I don't have the time for it anymore. I will still maintain the list online and you can see it there.

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Chips...er...Tips Cleaning Bio Filters

By Elizabeth M. Lukan 3/24/01

Any biological filter media (sponge etc.) should be washed out in tank water. Washing in tap water will kill the beneficial bacteria and render the filter media dead until recolonized, putting your system at risk.

A good plan is to rinse your biological filters during your regular water changes. Siphon your water out and rinse your filters in it before discarding the water.

To Submit Your Tip: Send your tip via email to fishnchips@mail.com and I'll publish it in an upcoming issue of Fish 'N' Chips. I'll write it up for you or you can do it yourself if you are so inclined. Make sure you let me know if I can include your name and email address or if you'd rather go anonymous.

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Upcoming Events

By Elizabeth M. Lukan 3/16/01

Event	Start Date/ Time	End Date/ Time	Location	Event Details, Notes, and For More Info
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Aquarist Profile Survey	Aug. 2000	Open Ended		Info: What is the profile of a marine aquarist? Visit the #Reefs website at http://www.reefs.org/ .
Mandarin Survey	Jan 2001	Mar 2001 (detailed analysis) Open Ended (simple analysis)		If you have ever kept a mandarin, please fill out this survey, even if it has died. Visit the #Reefs website at http://www.reefs.org/ .
#Reefs Talk	3/18/01			Connie Hannon and Dennis Gallagher from MASNA will be talking about local reef clubs and MACNA XIII. Visit http://www.reefs.org/ for info, access, and talk times.
Mid-West Marine Conference	3/24/01		Ann Arbor, Michigan	For info: http://www.masm.org/
Seahorse Exhibit	4/20/00	April 2001	New York Aquarium	Info: Some of the animals to be featured are leafy sea dragons, weedy sea dragons, pygmy seahorses, pot belly seahorses, local seahorses, giant seahorses, and pipe fish. Where & Contact Info: Brooklyn Aquarium, West 8 th Street and Surf Avenue, Brooklyn, NY (USA), 11224. Phone: (718) 265-FISH.

Message Board Poll Contest	now	4/1/01		Contest Info, Etc.: Just go to fishroom.com's (http://www.fishroom.com/ (<i>url dead 10/03/05</i>)) The Reef message board and reply to the new poll posted there. Prize: 20 lbs. of Florida Keys aquacultured live rock.
Western Marine Conference 2001	4/22/01 <i>New Dates</i>	4/24/01 <i>New Dates</i>	Monterey, California, USA	Info: For more information, visit http://www.seabay.org/
Message Board Poll Contest	now	5/1/01		Contest Info, Etc.: Just go to fishroom.com's (http://www.fishroom.com/ (<i>url dead 10/03/05</i>)) The Cove message board and reply to the polls posted there. Prize: Barracuda RO/DI Unit
Fishroom.com Survivor	4/1/01	7/1/01		Info: 32 contestants, 2 tribes will be chosen, 1 person will win. Visit the Fishroom.com at http://www.fishroom.com/ (<i>url dead 10/03/05</i>). Prize: 20 lbs. of Florida aquacultured live rock and a choice of CustomSeaLife 15watt Hang-on UV Sterilizer or AquaC Remora Protein Skimmer.

MACNA XIII: "The Living Seas"	8/17/01 <i>New Dates</i>	8/19/01 <i>New Dates</i>	Baltimore, Maryland, USA	Info: For more information, visit http://www.cmas-md.org/
2nd International Conference on Marine Ornamentals	11/27/01	12/1/01	Walt Disney World Resort, Lake Buena Vista, Florida, USA	Info: For more information, visit http://www.ifas.ufl.edu/~conferweb/mo (<i>url dead 10/05/05</i>)
International Coral Reefs Conference of Paris	March 2002		Paris, France	Info: http://www.circop.com/ .

To Submit Your Event: Send your event and all the specifics (date, time, location, pricing, contact info, etc.) via email to fishnchips@mail.com and I'll publish it in all issues of Fish 'N' Chips prior to the event.

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Prove It!, a Bibliography

By Elizabeth M. Lukan ??/01

Article: Caught In The Net, Marine Related News Section

- Environment News Service, <http://ens-news.com/>

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Newsletter Disclaimer

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To unsubscribe, send an email to FishNChips-unsubscribe@yahoogroups.com visit <http://www.marinefiends.com/> (*updated 8/24/04*).

Any and all comments, suggestions, etc., should be directed to fishnchips@mail.com.

The Fish 'N' Chips Website can be found at <http://www.marinefiends.com/> (*updated 8/24/04*).

To view the current issue of Fish 'N' Chips, visit <http://www.marinefiends.com/current.html> (*updated 8/24/04*).

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