

Fish 'N' Chips

A Monthly Marine Newsletter
November 2002 Issue

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From Liz

By Elizabeth M. Lukan 11/25/02

Thanks for the Showcase Submissions! I've gotten six submissions so far. I'll do my best to review and reply to each one over the next month or so. In the meantime, please keep those submissions coming!

Visit This Month's Subscriber's Tank Showcase: Ray Durham'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!

In Tank Drip Sump Refugium

By International Marine Aquarists Mailing List, 12/16-20/01

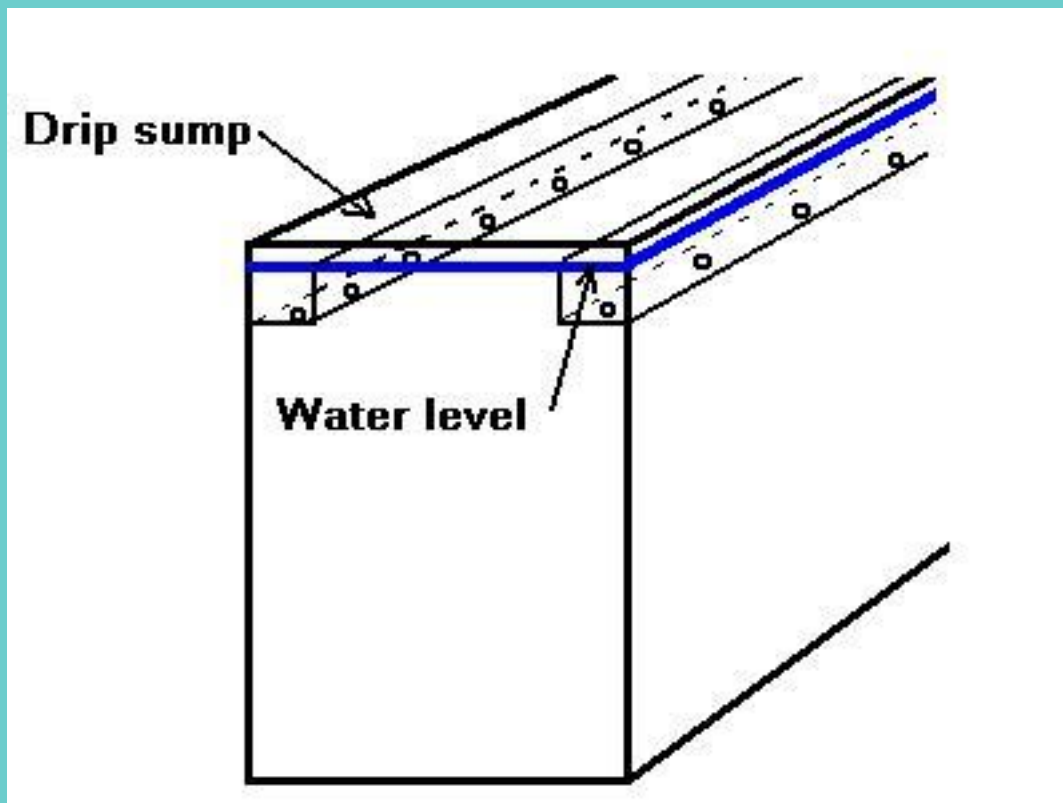
Edited By Elizabeth M. Lukan, 11/26/02

Hennie Landman's post, the In Tank Drip Sump Refugium idea is born:

Being on leave, I spent the day doing tank maintenance, and while busy with my main tank, I started thinking about possible ways of having a refugium inside the tank. Now, this reminds me of the saying "you cannot have your cake, and eat it," but perhaps this idea comes close?

Please consider the following, and let me have your thoughts, comments, and criticisms. And please, if you think it is a dumb idea, say so (and why). I will not be offended, I promise.

Construct a tank 100mm - 200mm higher than normal, and then add the bracing running the length of the tank (as normal), but at a depth of 100mm - 200mm below the top. Then, add another vertical pane from the inside edge of this bracing, to a height of say 30mm-50mm below the top. You would have two "mini sumps" built in running the length of the tank. Drill a few small holes in the bracing to allow the water to pass through the "sump." Install a small powerhead to pump water into these "sumps" and place some mesh over the holes. Now, fill the tank to a level just below the top of the "sumps."



These "sumps" should receive very strong light, being just below the water surface, and I'm sure that hair algae will start to grow in them rather soon. If not, place some macro algae in them, and perhaps a few small pieces of live rock. However, because the "sumps" are quite narrow, and located so high up in the

tank, I don't think that they will cause much shade deeper down in the tank if the lights are mounted in the center, as usual.

Because of the constant flow of water, and the very brightest of lights, your algae and small critters should multiply like crazy. The small critters should easily move through the holes, while the predators inside the tank will be unable to go through in the other direction. Also, because there is no return pump involved, all the critters migrating into the tank will be alive and undamaged by any pump impeller, etc.

Well, that's the idea, in a (rather large) nutshell. I'm sure that with feedback from the Forum, we will be able to thrash out any bugs, and perhaps add some modifications, such as a way to change it into a refugium/surge device.

Now the only question remaining is: Who will be willing to try it out first?

The comments, suggestions, and general aftermath:

Eirik Mack Eilertsen:

I like it! I've been thinking of adding a sump to my tank but haven't really decided on how to do it yet (size and placement of refugium etc.).

Your suggested in-tank mini refugium is pretty nifty! I'm a bit concerned that the relative small size of it will diminish its beneficial effect though.

Hennie Landman responds:

A friend of mine has something similar inside her conventional "under-tank" sump. It slopes from the top along the length of the sump, dropping about 50mm over 1.5m. It is partitioned every ~200mm with a large opening plastic mesh, and is full of Caulerpa. There are thousands of small critters (Copepods, Amphipods, small bristleworms, even small brittle stars) living in it. Due to the setup, this "algae filter" only acts as a nutrient sump, and does not add much life forms back to the tank.

A "sump" of 100mm high x 100mm wide x 1.5m long would have a volume of 15 liters (~4 gallons) and obviously two of them would be a total of 30 liters. Although rather small in volume, it would have a relatively high surface area, which would allow a much denser growth than in a deeper container of the same volume.

Also, being so close to the main lights in the tank, I would expect the algae to grow **much** quicker than in a deeper, darker sump.

And some people **may** find it a bit unsightly.

Hennie Landman responds:

Yes, I agree. An easy way around this would be to either extend the sides of the canopy to cover this area or to just stick a wide band of black tape around the top of the tank, thus effectively hiding the "sump."

I still rather like the idea. It's not like anything I've ever seen before.

Hennie Landman responds:

I must admit that I'm rather exited about it myself. In fact, I've put the purchase of my new 2.0m tank on hold, until I can decide if I want to add this "feature" to it. Of course, it's all just theory at this stage.

Marc Evans

Now this is why I really like this forum. Innovative ideas like this, just being tossed around. I like this idea, Hennie, and think it's worth checking out. I'll give it some thought and see if I can come up with constructive criticism/suggestion.

Frank M. Greco:

Hennie, I like the idea! It sounds like it should work.

Keith Hellyar

I think this is a good idea. May I suggest an enhancement? You could drill the holes at one end of the channel and pump water into the other end. In this way the water would have to travel the full length of the refugium before exiting. Therefore percolating through all the algae. This would also help to avoid any stagnant areas.

If you are thinking of incorporating this into a new tank, you could think about making it so that it is removable (perhaps constructed from Perspex). At least then if it doesn't work out, you can remove the refugium without dismantling/damaging the tank.

Mattias Lindstrom

I've been thinking about ways to add a sump to my tank and when I saw the drawings of your idea, I thought "Wow, that is what I want to do." I was thinking if it would be possible to use this setup but have the sump above the water level, maybe the temperature in the water would rise too high?

Hennie Landman responds:

Perhaps, but I don't think it would be very much, especially if there is a good flow of water from the main tank.

I suppose that you could build it above the water level without any problems. You would then just need glass for all the sides, rather than using the existing tank "wall" and brace for one side and the "floor."

Tobie Schalkwyk also responds to the heat issue:

Not really, if it runs at a reasonable pace. But the noise of dripping water and the amount of bubbles created by it may be a problem in the long run. My 2¢.

Otherwise, I'm planning on constructing something like this during the holidays if I can find a good supplier for the materials.

Hennie Landman responds:

Hey, that would be great! Someone to do the Beta-testing for us. Please keep us updated.

I was planning this last night and I think one way (not necessarily the best) would be to create the sump as a frame around and above the water level. Remember, I've got a square tank measuring 110*110 cm. In order to maximize surface area and sump volume, I was thinking of making four equally large sumps, and connect them in a square shape. The sump would be fed by a powerhead and the tank return will be some 1" or 2" pipe. I'll try to get as good pics as possible when I do this. I'm going to make some blueprints later tonight to see if it is doable. One big "if else" is if it is possible to get the volume of the sump large enough to be feasible.

Tobie Schalkwyk

Sounds like a good idea.

"Now the only question remaining is: Who will be willing to try it out first?"

You, of course!

Chris Stephens

I had similar thoughts to this several years ago and built something similar. It was about 3 inches wide and maybe 4 inches high, just short of the length of my 4 foot tank. In my case it was designed to hold bio-balls, before I saw the light, and to sit on the top of the tank. Anyhow, I built it out of some cheap perspex, and didn't use the correct type of glue to assemble it so it never got to see action. Doesn't help you much, but thought I'd chip in anyhow. As it happens, your design looks much better.

Editor's Comments:

The posts that make up this article are the property of the International Marine Aquarists (IMA) Mailing List. Permission to take posts and turn them into articles for Fish 'N' Chips was granted by Hennie Landman and a vote of IMA Members. I corrected spelling and grammar on the posts as well as put them into html and the Fish 'N' Chips format. Obviously, I took some liberties with the posts in order to organize them into an article. I hope I've done the conversation justice.

Visit the IMA Website at <http://listserv.ru.ac.za/mailman/listinfo/ima-l> (updated 8/24/04). To subscribe, visit <http://listserv.ru.ac.za/pipermail/ima-l/> (updated 8/24/04) or email ~~International_Marines-subscribe@topica.com~~ (updated 8/24/04).

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What's Up @ Reefs UK

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

By Elizabeth M. Lukan 11/24/02

11/6/02:

- A new article on breeding Pyjama (or Pajama) Cardinal fish (*Sphaeramia nematopterus*) has been added to the site. To read the article, click on "Articles" and then "Captive Breeding".
- For those new to reefkeeping, the first part of the "Reef Garden" article has been added

to the site. The article explains how to set up an aquarium and stock it with sustainable species of corals and fish. To read the article, click on "Articles" and then "Marine Aquarium".

To join the Reefs UK Mailing List or the Reefs UK Chat (Email Discussion Group), visit the Reefs UK Website for instructions.

Editor's Comments:

Information in this section covers the latest happenings at Mark T. Taber's Reefs UK 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 Reefs UK. 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 11/26/02

New Stuff Found

On Advanced Aquarist's Online Magazine (<http://www.advancedaquarist.com/>):

- Volume 1, Issue 11, November 2002 is now available.

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

- Article: *Addressing Fishroom Humidity* by Various Authors
- Article: *Algae Removal from Glass* by Various Authors
- Forum: New MASNA (Marine Aquarium Societies of North America) Forum created on Reefs.org Bulletin Board

AquaSupreme v2.8

Found thanks to Lockergnome (<http://www.lockergnome.com/>), one of my favorite newsletters, AquaSupreme is a Win 9x, 2k, ME, NT shareware screen saver that includes real photos of fish. Featuring an almost infinite number of tank configurations you can enjoy an at-

home aquarium or view something you would see scuba diving. You can add darkened background cliffs to give depth and corals for beauty. The full version costs \$14.99 US\$ (about £10.50 UK). DirectX is required. You can download AquaSupreme at <http://www.gnomedownloads.com/Savers/SeaLife/aquasupreme.html>. (*url dead 8/24/04*)

And on that note... AquaSupreme reviews are welcome! Email your thoughts and opinions to me at fishnchips@mail.com. (*updated 10/12/05*)

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Marine News

By Elizabeth M. Lukan 11/26/02

10/29/02 - DC, USA:

A new study from the Pew Oceans Commission warns that ocean ecosystems are being strained by pollution, coastal development, and harmful fishing practices. These human caused problems are endangering the ecological and economic benefits produced by some of Earth's most diverse and productive ecosystems.

News Release: <http://ens-news.com/ens/oct2002/2002-10-29-06.asp> (*url dead 8/24/04*)

10/29/02 - Ohio, USA:

Tropical coral formations can be used to help geologists reconstruct climate and storm patterns of the past and learn more about the preservation of reefs.

News Release: <http://ens-news.com/ens/oct2002/2002-10-29-09.asp#anchor2> (*url dead 8/24/04*)

10/29/02 - DC, USA:

Scientists are linking over 430 cases of coral bleaching documented by researchers so far this year to climate change. The majority of bleaching records have come from the Great Barrier Reef in Australia with others from Philippines, Indonesia, Malaysia, Japan, Palau, Maldives, Tanzania, Seychelles, Belize, Ecuador and the United States.

News Release: <http://ens-news.com/ens/oct2002/2002-10-29-19.asp#anchor1> (*url dead 8/24/04*)

11/7/02 - California, USA:

According to new research by a marine biologist from the University of California at Davis, warmer winter temperatures may allow invasive species to become established and even dominate marine communities.

News Release: <http://ens-news.com/ens/nov2002/2002-11-07-09.asp#anchor4> (*url dead 8/24/04*)

11/13/02 - DC, USA:

The U.S. is designating new protections for more than 3,000 square nautical miles around the Florida Keys National Marine Sanctuary to help safeguard the region's sensitive and vulnerable coral reefs. The measure, the first in U.S. waters and only the fifth worldwide, is intended to reduce the threat of large foreign flagged ships damaging coral reefs, sea grass meadows, and mangrove forests in the area.

News Release: <http://ens-news.com/ens/nov2002/2002-11-13-06.asp> (*url dead 8/24/04*)

11/15/02 - Santiago, Chile:

Environmentalists have declared major victories at the United Nations conference on trade in endangered species. Landmark decisions today to protect mahogany and the entire genus of the seahorse, along with a last minute decision in favor of regulating the trade of basking and whale sharks, capped the two week conference, which also saw a resounding defeat of Japanese efforts to increase whaling.

News Release: <http://ens-news.com/ens/nov2002/2002-11-15-11.asp> (*url dead 8/24/04*)

11/18/02 - Tortola, British Virgin Islands

All of us have admired the beauty of coral reefs and the wonderful creatures that populate them. Dr. Richard Murphy's new book, *Coral Reefs, Cities Under the Sea*, tells the story of that undersea world in a fascinating, accessible manner, which makes young and old alike want to fuss over preserving this fragile world.

News Release: <http://www.ewire-news.com/wires/D94851B8-D89C-4E71-B2B03F036625958E.htm> (*url dead 8/24/04*)

11/25/02 - Belize City, Belize:

The government of Belize signed legislation to protect the Nassau grouper, a commercially valuable reef fish known for its spectacular spawning ritual.

News Release: <http://ens-news.com/ens/nov2002/2002-11-25-19.asp#anchor7> (*url dead 8/24/04*)

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Chips...er...Tips

Tank Choice: Acrylic vs. Glass

By David Brough

Edited By Elizabeth M. Lukan, 11/26/02

To help you make your tank decision, here are some pluses and minuses for acrylic and glass tanks.

1. Acrylic is a better insulator than glass so a smaller heater will work for the same sized aquarium and temperature fluctuations happen slower. This is good for stability!
2. Acrylic is clearer than glass. It actually lets 14% more light through than glass.
3. Acrylic can have a much greater variety of shapes. Acrylic aquariums commonly have rounded corners (rather than seams) and usually have a more 'contemporary' look. Acrylic coffee tables and even bubble tanks (like Captain Picard's) can be found.
4. A disadvantage of acrylic is that it scratches much easier (be careful with inside decorations) so special cleaning pads must be used. NEVER use a brillo pad or a green pot scrubber on an acrylic aquarium.
5. Perhaps the biggest disadvantage of acrylic is the cost. Usually an acrylic aquarium will cost 2 to 3 times what a similar sized glass aquarium would.

Editor's Comments:

The above tip was taken from David Brough's Exotic Tropicals site. David gave me permission to include information and articles from his site as I needed. The above is part of David's "Marine Aquarium Basics" article. Thanks Dave for coming through yet again! You can visit Exotic Tropicals at <http://www.exotictropicals.com/>.



To Submit Your Tip: Send your tip via email to fishnchips@mindspring.com (visit <http://www.marinefiends.com/submit.html> - updated 10/12/05) 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 11/25/02

Event	Start Date/ Time	End Date/ Time	Location	Event Details, Notes, and For More Info
Aquarium Survey for Mike King	now	unknown		Reefs.org: http://www.reefs.org/survey/mike_survey.html
Marine Aquarium Animals Survival Survey 2002	now	unknown		Marine Conservation Society, http://www.mcsuk.org
Salinity Survey	now	unknown		Reefs.org: http://www.reefs.org/
Tampa Bay Reef Club Holiday Party	12/14/02		Member's Home	Email club@tampabayreef.com for info.
#Reefs Talk: Barbara Best (CRTF)	1/12/03 9pm EST			http://www.reefs.org/access/index.html
International Coral Reefs Conference of Paris (CIRCoP)	1/31/03	2/1/03	Paris, France	http://www.circop.com/
#Reefs Talk: Frank Marini	2/23/03			http://www.reefs.org/access/index.html
Third International Days of Marine Aquaristic	6/7/03	6/9/03	Salle des fêtes in 67400 Illkirch Graffenstaden, Strasbourg, France	Organized by Récif France. Announced: Hans- Evers Balling, Heiko Blessin, Craig Bingman, Dieter Brockmann, Robert Brons, Lars Sebralla, Julian Sprung, Dieter Stüber. Contact: jjeckert@evc.net

To Submit Your Event: Send your event and all the specifics (date, time, location, pricing, contact info, etc.) via email to fishnchips@mindspring.com (visit <http://www.marinefiends.com/>

[submit.html](#) - updated 10/12/05) 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 11/25/02

Article: Marine News

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

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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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