

Raleigh Aquarium Society News



MAY 2004



Next Meeting: Thursday, May 6th @ 7:30pm

Meetings are held on the first Thursday of each month at the N.C. State Veterinary Medical College located at [4700 Hillsborough Street in Raleigh](#). Visitors are welcome! Snacks and light refreshments are provided. A raffle of fish and fish related items follow the meeting. Due to Security Issues, NCSU has required that the doors going into the downstairs lobby remain locked. Please be on time, as we will have a designated person standing by the door to let you in. If you are late, you may try knocking or call Brandon Berry's cell phone at 252-266-3559, Jeff Jenkins at 919-612-0229, or John Patterson at 919-264-4011.

Meeting Agenda

Chad Bryant: "An Advanced Talk on Reef Aquaria"

Chad Bryant is a reef enthusiast who has 14 years of experience with salt water aquariums. He began an online website called ReefScience.com which has been in operation for 2 years now. He is co-founder of the Raleigh Area Reef Enthusiasts (RARE) and President of the newly founded Marine Aquarium Society of the Carolinas (MASC). He resides in Apex, NC with his wife and soon to be son. Chad also holds a B.S. in Computer Engineering from NCSU.



Upcoming Meetings:

At an undetermined date we will have a speaker from the NC Aquarium at Pine Knoll Shores discuss the giant 2 year renovation that has recently begun.

Other Announcements

The **North American Native Fishes Association (NANFA)** will have their 2004 Convention in Columbia, South Carolina on June 17-20. Dustin Smith, Fritz Rohde and Chip Rinehart will be acting as your hosts. The format for the meeting will be a full day on Friday of collecting trips around South Carolina, with the possibility of brief forays into North Carolina and Georgia. Friday night they will have their annual auction as well as guided tours of the aquariums at Riverbanks Zoo. On Saturday they will have presentations of interest to NANFA members by some well-know and highly regarded speakers, followed the banquet that night, also at Riverbanks. Sunday, for those interested, they will do some more collecting. See the website for more details.

<http://www.nanfa.org/>

Monthly Featured Article

Building a Giant Bio-filter for Your Pond or Aquarium Room

By: Brandon Berry

Materials

- 1 - 55 gallon plastic drum (do not use one that had been used to store harmful chemicals – farmers get grain alcohol for use on tobacco in 55 gallon drums – these are the best because they only need a light rinsing)
- 3 – center blocks to set drum on
- 1 – large pump (mine is a 2400 gph pool/spa pump)
- several bags of large black lava rock or other preferred media
- a piece of 3” pipe slightly shorter than the drum
- 1 ½” pipe (length depends on distance from the pond/tank to the pump and up to the top of the drum)
- 2” pipe (length depends on distance from filter to tanks)
- PVC pipe thread adapters for the pump
- 2 – 1 ½” pipe unions (for easy disconnecting of the pump)
- pipe glue
- 3” toilet flange (get the kind that the pipe fits inside, not the one that fits in the pipe)
- toilet bolt kit
- 20 oz. Soft drink crate
- old Frisbee
- 1 ½” ball valve
- 1 ½” bulkhead
- 2” bulkhead
- Hole Saws for bulkheads and a ¾” drill bit
- Saw for cutting out drum top (preferably a reciprocating saw with a metal cutting blade)
- 2” pipe union
- 1 ½” swing check valve (if the pump is above the water line), T with a cleanout insert cap that you can plumb in above the pump in order to fill the line with water and prime the pump (you will also need 2 - 1 ½” MPT adapters to plumb in the check valve. I need one for my strainer also.)
- 3” x 1 ½” pipe “T” (2 sides are 3”, with 1 ½” insert in the side diverting the flow in one direction)
- skimmer box or other method for drawing water from the pond/tank (just make sure there is some kind of strainer to prevent clogging the pump)
- pipe elbows for both 1 ½” pipe and 2” pipe (Amount varies depending on setup. For mine I needed a 1 ½” elbow in the overflow box, one going up to the side of the garage, one going into the side, one on the other side of the wall going to the pump, my pump faces upward so I don’t need one going up to the top of the drum, but I do need one at the top connected to the “T” and the cleanout insert, and one going over to the 3” x 1 ½” “T”. I also need one on the bottom for the drain valve. So that’s 7 for my set-up. I then needed one 2” elbow going down from the outflow bulkhead, one at the bottom, one going out of my garage wall, one going down underground, one going over to my water fall, one coming back up above ground, and one diverting it out into my waterfall. So that’s 7 of them that I used.

Building the filter:

First cut the top off the barrel from the inside. Cut as close to the edge as possible, as the top will be used in the bottom of the barrel to hold the lava rock off the bottom. Then take the top and cut a hole in the center the size of the hole in the toilet flange. Then you will need to get a $\frac{3}{4}$ " drill bit and drill as many holes as possible in the top. Once you have done this, use the toilet bolt kit to bolt the flange to the drink crate with the drum top between them. I then used 4 extra nuts to bolt the Frisbee onto the bottom with as much gap as possible to allow the water to come down the pipe, hit the Frisbee, and be diverted into all directions. Also the Frisbee should allow the waste to collect on the bottom, where it can be easily flushed out through the flush valve.

Next, install the flush valve. Use a hole saw to cut a hole in the center of the bottom of the barrel and screw in the $1\frac{1}{2}$ " bulkhead. You want the flat end of the bulkhead inside the barrel. Then glue a piece of pipe into the outside of the bulkhead just long enough to attach an elbow. From there attach a piece of pipe long enough to reach out from the bottom and glue on your ball valve.

Plumbing:

Water enters my skimmer box in the pond where it goes through the coarse prefilter that removes anything that would clog my strainer. It then travels through the strainer→ MPT (male pipe thread) adapter→ short length of $1\frac{1}{2}$ " pipe→ MPT adapter→ swing check valve→ MPT adapter→ short length of $1\frac{1}{2}$ " pipe→ elbow→ $1\frac{1}{2}$ " bulkhead→ various pieces of pipe and elbows→ union→ PT adapter → pump→ PT adapter→ union→ pipe up to "T" which is about half way up the side of the drum. I then have an elbow inserted into the tee facing upward, and the cleanout insert in the elbow. This way I can unscrew the cleanout and pour water down into the pump and line, thus priming the pump. From the "T" a length of pipe extends just over the top of the drum→ elbow→ 3" x $1\frac{1}{2}$ " "T". The water is then pumped down into the bottom of the barrel through the 3" pipe. Air is also sucked in through the top causing lots of oxygen to enter the bio-filter. Water then travels up through the lava rocks and out the 2" bulkhead that is installed about 4 inches from the top of the barrel. I stuck a pipe "T" in my bulkhead to reduce the chances of it clogging. Some sort of strainer cage would be better. I saw where one guy who had built a similar filter had a lava rock float up and clog the outflow, thus draining the pond and flooding the area where the drum sat. Just have some way to prevent this and you should be OK.

Another idea I came up with, which I plan to add to the set-up is a float switch to shut off my pump in the event that it loses prime. So far the only time it has lost prime was when the pre-filter got really nasty after the first time I turned it on, and the line started sucking air.

NOTE: Make sure the top of the barrel is above the water line of your pond / tank. While I have mine sitting on one level of center blocks, I see no reason why you couldn't stack a couple more levels if you need to.

If at all possible, it would be nice to have the pump below the water line to prevent the need for the check valve and the cleanout I installed to prime the line.



TRADING POST

To advertise please send the information to:
raleighaquariumsociety@yahoo.com

John Patterson has for sale - baby discus, quarter size, cross of a wild rio jatupu (orange) and a gold diamond (solid gold in color), weak orange atm but should get darker with age, 30 available, \$15 a piece

Group Order

Please let John know by Monday May 3rd if you wish to get any of this stuff from him.

Hikari frozen bloodworms and brineshrimp at \$9.00 a lb

Blackworms - \$15 a lb.

Worm keepers for \$6.00 each

Also he will have blackworms to replace those that came in last time. Replacement lbs are \$10 a lb (cost of shipping only) for those that ordered last time. These are being sent by air-freight, so they should be in excellent condition.

Contact John at 919-264-4011 or jrpatter@hotmail.com

Frank Montillo has for sale:

African cichlids: Daffodils, Lelupei, Blotched Zebras, Red Zebras, Electric blue ahli

1/2 blue red tail guppies

Brand new Penn plax heater 100 watt

919-556-9004

Brandon Berry – for sale or trade

4-5" Breeding pair of Nicaraguan cichlids - \$20

1-2" Convicts – free

1" Jack Dempsey – free

24" albino channel catfish - \$30

glofish - \$8

Group Order

Frozen Mysis shrimp \$5.50 per 8 oz. Package – order by Monday May 3rd

(252) 266-3559, brandonberry@cox.net

Sue Cotton has for sale:

Betta Splendens in yellow, chocolate, turquoise, and blue. Some double tail; all single tails carry DT trait.

Red, Copper/Red, Red Cambodian, and Blue Cambodian spawns 4 weeks old - juveniles should be available in 4 weeks.

Wanted: Large Grindal Worm or White Worm Culture

quiltgirl@bellsouth.net

Infinity Pets – (Ken Fowlston) has for sale:

Espei Pencilfish
Beckfordi Pencilfish
Rasbora espei
Diamond Tetra
Croaking Gourami
Botia angelicus
Pentazona Barbs
Puntis rhombocellatus
Threadfin Rainbows
Corydoras elegans
Corydoras metae
Endlers Livebaers
Syndontis decorus
Syndontis petricola
Siamease Algae Eaters (Crossocheilus sismensis)

919-570-3039
100 West Main St., Suite C, Youngville, NC
infinitypets@earthlink.net

Club Sponsors

(The following businesses give *RAS* members a discount on purchases)

Creative Pet	1350 E Broad St, Fuquay Varina	(10%)
Critter Country, Inc.	14 Technology Drive, Garner	(10%)
Fish Pros	5221 Hillsborough Street, Raleigh	(10%)
Pet Mania	All Area Locations	(10%)
Pet Paradise	9101-141 Leesville Road, Raleigh	(10%)
Triangle Tropical Fish	3600 N. Duke St., Suite 36, Durham	(10%)

(Excludes Aquariums and hoods)

You may be asked to show your *RAS* membership card.

Please contact Brandon Berry at brandonberry@cox.net if you are an active member of the Raleigh Aquarium Society and do not have an up to date membership card. Membership cards can be picked up at any meeting.

Raleigh Aquarium Society

Application for

Membership

Membership privileges include:

12 monthly newsletters

A discount card good at participating local pet stores

All club discounts on club functions

Individual Full Year \$15.00

Family Full Year \$17.00

Name(s): _____

Date: ____/____/____

Address: _____

City: _____ State: ____ Zip: _____

Phone: (____) _____

Email Address: _____

New Membership _____

Renewal Membership _____

Mail to:

Raleigh Aquarium Society

PO Box 31564

Raleigh, NC 27612-1564