HI-FIN

December 2009

Presidents Message

I would like to welcome everybody back for another great year at the Peel Regional Aquarium Club. This year should be very exciting with our lineup of guest speakers and with some familiar faces coming back to join us. First I'd like to thank all to volunteers that have been helping for the year, John for the re-building of our web site and the new forums page, Udo for bringing back the newsletter (delayed because of me not writing this message), Gary, for the great line up of speakers for the year, Bob for making the required calls for the Christmas party.

This years auction brought in the necessary funds to keep the club going and pay the bills, but due to the economy we are still in need, the Spring auction will cover these remaining costs. The legion has been booked and paid for to host the spring auction. Due to the financial situation the executive will NOT be meeting at the Pizza Hut to hold their monthly meetings, instead I have offered a meeting room at the Brampton Courthouse for these meetings.

We now also will have the library back in the classroom, the teacher in the classroom that we use has given us permission to use the "server rack" in the classroom and at the Christmas party I brought the books out of retirement and back for the members/us to use, so now we need a librarian.

There are many people to thank for the continued success of the club, there is no one person, it's the team effort that we have which keeps us going and moving ahead. I hope to see everybody out at the next meeting, 21 January 2010.

Everybody, have a safe and happy Holiday Season, and we will see you in the New Year.

Thanks

Ed

Editors Message

This is my first edition of the Hi-Fin and I hope that you have as much fun reading it as I had writing it!
The holiday season is upon us and this means that our aquatic friends will take a backseat to our families and friends for the next few weeks.
Our feature article is of the DYS variety, so if you find yourself with some extra time over the holidays this may be an option for you

Udo Rohmann

HI-FIN

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Peel Regional Aquarium Club Executive

President	Ed Czuchnicki
Vice President	Tim Antler
Treasurer	Lloyd Cockburn
Secretary	Denise Antler
CAOAC Rep	Frank Aguirre
Auction Chair	Ed Czuchnicki
Program Chair	Gary Peacock
HiFin Editor	Udo Rohmann
Membership	Bob Wilson
Web Master	John van Rompu

CAOAC Calendar

February14, 2010
Tropical Fish Club of Erie County Auction

March 7, 2010
Peel Regional Aquarium Club Auction

March 14, 2010
Hamilton &District Aquarium Society Auction

March 28, 2010
Brant Aquarium Society Auction

April 11, 2010
Durham Region Aquarium Society Show and Auction

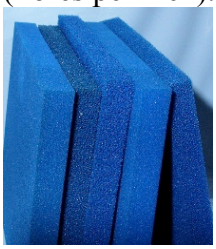
April 17, 2010
Sarnia Aquarium Society Auction

May 21-23, 2010
CAOAC Convention

The Hamburg Mat Filter

The Hamburg Mat Filter, HMF for short, has been in use in the Hamburg area of Germany since the early 1960's. The Hamburg Mat Filter uses a single section of filter foam as the biological filter medium. In the first designs, these sections were installed on either side of the aquarium, side to side, bottom to top

The filter foam used is reticulated foam specifically made for filtration purposes and without any chemical additives. The density of foam used is usually 10, 20 or 30 PPI
(Pores per inch).



http://www.swisstropicals.com/
Filter Foam is available thru Swiss Tropicals or a local manufacturer in your area
The thickness of material is usually 3 or 5 centimeters thick.
These choices are influenced by the tank size and type of inhabitants. Fine foam is

better suited for shrimp and fry rearing tanks, Course material (10 PPI) is more suitable for large fish. The thickness is

dependant on the size of the tank as the thinner foam will not be stable in a larger section.
Traditionally the foam is installed into a plastic channel which has been siliconed to the tank sides and bottom. I personally have found it to be accecptable to friction fit the foam into the tank end side to side, the foam remains in solid contact with the bottom by pushing the top below the plastic trim of the tank.
Many other configurations are possible, corner, semicircle and even hang on the back versions.
The required size of the filter mat can be determined using the following equation

V x T x A = Filter area

V= volume in litres
T= volume turn over per hour (2 is recommended)
A= approach speed in centimeters per minute (5-10 is recommended, I use 7.5)

You will find that the Mat Filter area will be correct for most standard size tank sides.

The calculation is necessary for other shapes and locations.

You may say that this is just another sponge filter, well, you are right and wrong!

The Hamburg Mat Filter has a very large filter area, far larger than any standard sponge filter, this allows for optimum dwell time of water in the filter medium to maximize the biological filtration activity. In addition to this a build up of beneficial bacteria will occur behind the Mat! Do not remove this bacterial build up.
Many hobbyists, including myself have found that once a Mat Filter is installed, cleaning is not required for very long periods of time (2-3 years or more).

Moving the water thru the mat can be achieved in one of 2 ways, the installation of a power head or an air lifter.

My personal preference is with an air lift (I currently use a central air pump with an output of 80L/min to drive 32 tanks with a total volume of 1100 gallons), This makes the system very economical to operate.

The Air lifters are constructed as follows

- Parts list: pipe1” pipe,11/2” pipe, 2 - 32x4 – O rings, 3/16” rigid air pipe

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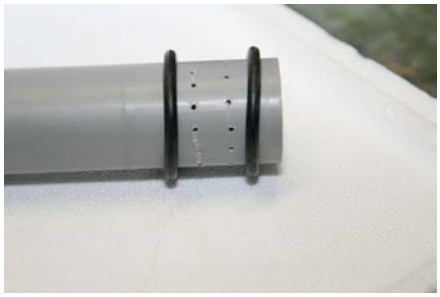
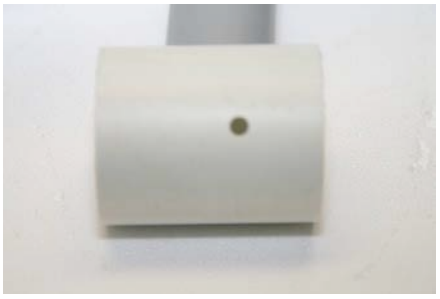
Drill a series of 1mm holes around one end of the 1” pipe (2 or 3 rows)

Install one o ring above the rows of holes and another below it as follows



Drill a 3/16” hole into the 11/2” pipe section and install a short piece of 3/16th rigid pipe (friction fit)



Slide the 11/2” pipe over the 2 o rings, this creates the pressure chamber

Attach the 1” electrical PVC elbow and cut the exit side on a 60 degree angle

Now attach your air line and you are ready, The finished lifter should be about 1.5” above the bottom of the tank and the exhaust should be right on the waterline.

You can anticipate an output ratio of 1:2 Air: Water, this will be achieved at 90% capacity for the size of pipe you are using

The following is a list of other pipe sizes I have used

- 16mm pipe/ 20mm coupling/ 16x2.5 – O
- ¾” pipe/ 1” coupling/ 25x4 – O

This is the most efficient air lift design I have been able to find!

So try out a Hamburg Mat Filter on a tank, you will be pleased!

For further information I recommend the following web site (it’s in German, but translates well) http://www.deters-ing.de/

By: Udo Rohmann