

# B.R.A.S.S.

Barrie Region Aquarium Society of Simcoe



# Bulletin

Next Meeting  
January 10, 2012  
7:00pm - 9:00pm  
Maple Grove Public School

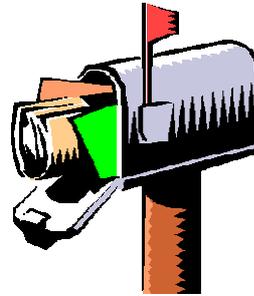
## The Mail Bag

### Message from the President

Hey here we are again saying hello to a brand new year. Wondering what it might have in store for each of us. Well a late happy new year to you all. Well the web page is up and running. That is thebrass.org. We are expecting a lot of guests this Tuesday so be sure to come prepared to buy and sell at our auction. We also have a raffle and door prizes. Our guest speaker this month, Jae Hovius, is a representative of Hagen and is bringing in some of Hagen's products to help us know what is available and what is new. Jae is also quite the fish enthusiast for many years. We are bringing coffee and Tim bits. It should be a great night.

Speaking of great nights the Christmas party was great as well seemed like no one wanted to leave. Hope to see most of you out for Saturday to let people know we are here. If not we'll see you at the meeting.

Doug Smith



### Message from the Editor

Happy New Year! Well it is certainly nice to be experiencing this mild weather during the month of January, unless of course you are an avid snowmobiler like our VP!

I hope you all had a wonderful holiday and got in some time to be with family, friends and fish!

This year in our fish club we are hoping for growth! Please make sure to tell your friends that share our interest about the club, you can even tell random people in the fish stores!

I am still looking for your suggestions as to what you want to see in our Bulletin. Please let me know.

Kara

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# Secretary's Report

As submitted by Bonnie Smith

The meeting of Dec. 13/11 had twelve people present. Doug F. read the minutes from last meeting. Doug S. showed copies of the flyers we will be handing out at the stores to invite people to our Membership Night. Everyone liked the format and gave the go ahead to print more. Sherrie suggested that Doug put our web address on the flyers. She is also going to get a quote from a printer near her work to see if it's any cheaper to go that way. Permission was given to Doug S. to purchase a print cartridge to print the flyers. January 7 is the date we are going to Pet Stores to hand out flyers to customers. Randy said he would put flyers in Fish Fanatics.

Doug S. has contacted Jae from Hagen to come talk and show product at our Membership Night, he will get back to us next week. We also agreed to take a large item from our donations to give away as a door prize. Everyone is encouraged to go through their "stuff" and find things to bring in for our auction that night. We want lots of items to auction off, please.

Treasurer reported we have \$467.24 and we all need to pay our membership and to send our membership to CAOAC.

The Web Page is up and running, thank you Michael. Randy will put an ad in for his fish. Michael is still working on the Logo, he showed us what he has so far. In Open Forum Bryan asked what we knew about self-cloning Cray fish. Jeff recounted a scary water change he had where the saturation of gas from heating up cold water were affecting his fish. Sherrie asked about a problem she was having with female peacocks being thin and emancipated. Jeff says there is a wasting disease that other fish can be carriers of but not show symptoms. He says it is frustrating because nothing you do works and he tried everything. He spoke to a pathologist at the university and ended up putting the fish down. Thus began a lively discussion on how to put down a fish humanly.

This was our Christmas Party, so we had lots of good munchies to eat and time to get to know each other better, just talk about our fish, snails, plants or anything else we wanted to!

## Executives

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## Setting Up a New Tank, for Dummies

[http://www.aquarticles.com/articles/management/Gussie\\_setting\\_up.html](http://www.aquarticles.com/articles/management/Gussie_setting_up.html)

by Grant Gussie

Originally published in The Calquarium, Volume 40, Number 7.

Aquarticles

Your first tank arrives home, possibly with a bag of fish, possibly not. Possibly with a kit-type collection of assorted lights, heaters, and filters, possibly not. What are you going to do with it all? This article is intended to provide you with instructions for setting up your first tank. I assume you want your new tank to be something to admire, and that the typical "starter kit" aquarium complete with bubbling plastic skeleton is not going to cut it. Instead, this approach will give you a showpiece aquarium; one that will be an attractive feature in a semi-formal living room rather than an eyesore in the family rumpus room. As such, it will be naturally aquascaped with hardy, attractive, and (most of all) living plants, and be supplied with a nice collection of attractive, peaceful fishes.

There are plenty of different ways to set up such a tank, and you will get other advice from other club members, but the method I will describe is reliable.

Well, first off, I hope you haven't got a bag of fish yet. You need a couple of day's preparation before you're ready for that. Here's also hoping that you got some good advice when you purchased your equipment on what to buy. If you purchased at a department store or a non-aquarium specialty stores, you may have been sold whatever that particular store wants to unload. You may therefore have to make another trip to the store to get some decent equipment; and I would highly recommend one of the local aquarium specialty stores (Riverfront, Pisces, etc.) over Walmart. Before setting up your aquarium, this is what you should purchase:

1) A tank (obviously enough). It should be of all-glass construction and should ideally be in the 25 to 50 gallon capacity range. Anything smaller does not provide enough capacity to provide a stable environment in the hands of a beginner, and is really too small for an effective living room display anyway. Anything larger is more expensive than what you are likely to want to spend on your first aquarium. However, you should be aware that four-foot fluorescent bulbs are considerably cheaper than the three-foot variety. Therefore, even though a four-foot tank is more expensive to buy than a three-foot tank, it is less expensive to light and (as discussed below) lights are a primary expense. You should therefore seriously consider getting a four-foot tank; the final expenditure will not be a great deal more after the cost of bulbs and light fixtures are added in. A tank that measures 48"x12"x18 is very nice in this regard, but the smaller 36"x12"x18" size is more widely available and certainly does make for a nice display tank too.

2) An adequate light and hood assembly. This is the hardest item to find and possibly the most expensive item as well. The only hoods that are readily available for aquaria at a reasonable cost are those plastic aquarium hoods with the single fluorescent tube or a 20-watt incandescent fixture. They do not produce enough light for plants. At the very least, you need two full-length fluorescent tubes for a tank with plants, and even this will allow you to only keep a few shade-tolerant plant species. Most club members build their own multi-tube hoods using fluorescent shop fixtures. If you are handy with tools, this is highly recommended. Otherwise I would recommend getting at least two strip lights and a sliding glass aquarium cover. The aquarium cover is readily available at good aquarium stores but the strip lights may require a trip to Home Depot or Revy. Get full-spectrum fluorescent bulbs for your fixture. I would recommend the Philips Ultralume bulb as being an inexpensive and high-quality full-spectrum light. They are available in building supply depots with lighting departments, like Totem, Revy, Home Depot, etc. Other full spectrum bulbs (such as Vitalite) are also available in pet shops, but at a much higher cost. One of those pinkish-looking plant grow-lights is OK among the full-spectrum bulbs, but I would recommend that no more than half the bulbs above the tank be of this variety. I would not recommend those cheap warm-white or cool-white fluorescent bulbs; although inexpensive, they produce comparatively little light that is usable by plants. Neither would I recommend that a beginner use incandescent, halogen, or metal halide lighting. These lights have their place (I use all three myself) but they require special arrangements to deal with the heat they produce.

3) A heater. Any of the submersible or semi-submersible aquarium heaters are fine, but don't get the cheapest one available. Reliability is important here. You will want a heater rated for 100 watts to 150 watts.

- 4) A biological filter. However, I wouldn't recommend an undergravel filter for this tank. They are OK, but their drawbacks out-weigh their good points. They are difficult to maintain in the long term, require their own air or water pump, and should only be run in a tank with a separate mechanical filter. The need for a separate power supply for the undergravel filter plus another separate mechanical filter adds both cost and complexity to the tank. A single motorized biological filter unit that integrates both biological and mechanical filtration is simpler, less expensive, and much easier to keep clean than an undergravel filter. Mechanical biological filters are relatively new on the market, but are now widely available. They can either hang on the back of the tank, or be a canister. Most cost effective is a hanging filter. These come equipped with a supplementary biological filter module such as a biowheel (a waterwheel-like attachment) or a drip plate. Your filter should have a flow sufficient to turn over the tank's volume about three times per hour. So a 33-gallon tanks needs a 100 gph filter. The real-world flow rate will be about 75% of the rated flow listed by the manufacturer.
- 5) A separate mechanical filter if an undergravel filter is being used. If a power biological filter is used, these are unnecessary since the power filter will have its own mechanical filtration module.
- 6) An air pump or water pump, but again only if an undergravel filter is used. A power filter comes with its own motor.
- 7) Fine gravel or coarse sand. The darker the colour the better. Get at least a couple of inches worth. That's about one pound of gravel per gallon of tank capacity. A little more is better. If you wish, a cup or two of a substrate additive like laterite or earthworm castings can be mixed with the bottom third of the sand. Feel free to leave this step out however, as this is an advanced technique which I would hesitate to recommend to a beginner. Not only do you run the risk of the sand going anaerobic, substrate additives make for a real mess when you finally tear down the tank. Do not use a substrate additive if you plan to have only a few plants.
- 8) A very solid stand. Your finished tank will weigh over 10 pounds per gallon of capacity. Remember that.
- 9) Rocks or driftwood for decoration and the security of the fish.
- 10) A scraper to clean algae off the glass. Both the magnetic pad kind and a razor blade scraper should be acquired.
- 11) At least one nice soft net. Both a big "trapping" net and a smaller "herding" net are good to own.
- 12) A good thermometer. Make sure you examine all the thermometers in the store and find one that is reading the same as the other ones. The liquid-crystal stick-on thermometers are good, but can't be moved once in place.

But what you don't need yet is livestock (fish and plants).

Now, to set everything up, first wash the gravel and rocks in water only (no cleansers) and rinse out the tank as well. Pour in the gravel and then the rocks. Hang the heater, thermometer, and filter on the back of the tank, but don't plug them in yet. Fill the tank slowly with cold or lukewarm water, trying not to blow the gravel around, while watching for leaks and making sure your stand is holding up to the weight. After the temperature of the water equals the room temperature, plug in the heater and adjust it so its indicator light just comes on. Plug the filter in too. Allow a few hours for the temperature to settle and adjust the heater if necessary. You want a temperature to stabilize at about 25C. It will likely be the next day before you can set a stable tank temperature.

plant per gallon of water and a good handful of Java fern makes for a good first planting. But don't be discouraged if your plants die back immediately after planting; they will grow back. *Cryptocoryne affinis* is notorious for doing just that. *Vallisneria* is also known for languishing for a few months after planting, before starting to grow with abandon. Give your plants the time they need to get established.

Now, after things have been running and have been stable for another day or so (no sooner), buy some plants. I would definitely include the two plant species *Cryptocoryne affinis* and Java fern (*Microsorium pteropus*) because they are very easy to grow. Plant the *C. affinis* as you would any terrestrial plant, but tie the Java fern to your driftwood with some black thread. Do not bury the Java fern's roots. You can buy these species in all good aquarium stores, or club members can always be found that have some to spare. If you have at least two full-length fluorescent bulbs (as you should have) you can also include some *Vallisneria*, since these plants are also hardy and easy to keep, but they do require a good deal of light. There are many other species of plants suitable for the beginner, but be careful if you don't know which ones are suitable. Make sure that the plants you chose are actually aquatic plants, not terrestrial plants that were stuck under water by unknowledgeable or unscrupulous storeowners. If in doubt about a plant species, ask another club member for advice, or take one of the plant books out of the library to help your identification. Make sure you spend enough money on plants that you get a good number (club auctions are really good for getting plants in bulk). One *Cryptocoryne affinis* or *Vallisneria* plant per gallon of water and a plant per gallon of water and a good handful of Java fern makes for a good first planting. But don't be discouraged if your plants die back immediately after planting; they will grow back. *Cryptocoryne affinis* is notorious for doing just that. *Vallisneria* is also known for languishing for a few months after planting, before starting to grow with abandon. Give your plants the time they need to get established

After the plants are planted and the tank has sat with its filter running for a few days, you can add the first few fish; but only a very few (no more than three). Make sure that these first fish are not territorial, because if they are, they will stake their claims before the other fish get into the tank and attempt to drive off the new-comers when they arrive. *Corydoras* catfish make good first residents. You must now be patient. The purpose of adding these first few fish is to provide a source of ammonia to mature your biological filter. The biological filter requires time to grow a good culture of bacteria that will oxidize fish ammonia and change it into non-toxic nitrate. This generally takes at least a month; so give it six weeks to be sure. After the six weeks are up, you can populate the tank relatively safely. But don't add too many fish. You want a show tank, and a heavy fish population will only result in algae, dirty water, and maintenance problems. A relatively few fish swimming among healthy plants is much more attractive than a lot of fish in an algae-covered tank. The rule of thumb of "one inch of fish per gallon" is a good one, as long as you are talking about slim fish no longer than three or four inches in total length. Next month, I will discuss suitable selections of fish for the first-time aquarist.

Don't bother with chemical filtration in your filter box, such as activated carbon. With proper tank maintenance, carbon is not necessary. Also, don't be overly concerned about buying lots of test kits. The pH of Calgary's water is stuck on 8.2 and it's well-buffered and stable enough that (with proper tank maintenance) your tank pH will never be significantly different than that of the water that comes out of the tap. Therefore, as long as you follow proper set up and maintenance guidelines, there is little point in testing your tank pH. You may want to buy an ammonia test kit, but if you set up the aquarium correctly and allow enough time for the biological filter to mature, you won't have any ammonia to test anyway. And don't worry about getting any fish medications, tonics, or other such garbage. If anyone has ever saved a fish with over-the-counter antibiotics I have yet to meet him. It is much better to simply set up and maintain the tank properly, and you just won't see any disease.

However, do be concerned with getting high quality fish food. Good flake food is adequate for the fish I will describe next month, and the Aquarian and Tetra brands are especially good, as are many others. Good aquarium stores will only sell good foods, but department stores may sell poor quality flakes. In addition, some freeze-dried foods such as krill, ocean plankton, and mosquito larvae are also good dietary supplements. Commercial frozen foods are also good, but much more expensive. If you want to get more involved in the hobby, home made frozen foods are inexpensive and fun to make, and recipes can be found readily in *The Calquarium's* back issues. And if you find yourself becoming a budding fish fanatic, you can collect live insect larvae and crustaceans from country ditches and ponds during the spring. These bug-hunting expeditions can be a lot of fun. When feeding your fish, feed them lightly. Heavy feedings will result in rapid fish growth and lots of spawning activity, but will also considerably increase the amount of waste and algae growing in the aquarium. Since this is a display tank, not a breeding tank, feed only a little and you will have a much nicer tank. Feeding as much as your fish will eat in five minutes, twice a day, is more than plenty. And don't be concerned about missing a few feedings either. Your fish are fine without food for as much as a week. If you are going to be away for longer than that, make arrangement for a very light feeding every other day. Under no circumstances should you ever use those Plaster-of-Paris "weekend feeding blocks". The food particles in them are so small that no adult fish can eat them, and the blocks harden water as they dissolve. They are useless wastes of money and inedible sources of pollution.

You should seriously consider feeding your plants. There are lots of commercial fertilizer mixes that are just fine. However, I would only add fertilizer with a water change unless you purchase an iron test kit. If you regularly add fertilizer without monitoring the levels or first removing some water, you can get a toxic build-up of iron over time. So if the instructions on the fertilizer bottle are to add one drop of solution per gallon, and you change five gallons of water, just put five drops in the tank after the water change. Repeat this the next time you change water. Don't add any more than this unless you monitor the iron levels with a test kit. Remember that plants actually need very little iron. And don't use fertilizers that contain any phosphates or nitrates. Also, don't concern yourself with CO<sub>2</sub> fertilization. This is an advanced technique, and (although it's sort of fun to monkey around with the gear) CO<sub>2</sub> fertilization is not necessary for a healthy tank.

As for changing water, that is a very important part of weekly maintenance. I would recommend changing 25% weekly. This is a bit of a chore unless you have either a Python water changer or one of its competitors. These devices take almost all the drudgery of tank ownership and are well worth the money. Clean the glass with your algae scraper as well. Also clean the mechanical filtration module of your filter weekly, but leave the biological filter module for only twice-yearly cleaning. Even then only rinse the biological filter medium in old tank water. You can expect to devote 1/2 hour of maintenance to your tank weekly, but again, don't stress out about missing the odd week's maintenance schedule.

When changing water, make sure that the temperature is as close as possible to that of the tank, and add some dechlorinator as well. Dechlorinators, despite contrary opinion, are not strictly necessary in Calgary (I never use them) but are good insurance for smaller fish. If you use a dechlorinator, feel free to add water straight out of the tap through your Python (or other) water changer (just add the dechlorinator to the tank before refilling). Make sure however that the replacement water is well aerated during refilling in order to release any excessive dissolved gas. The Python is designed to aerate water during refilling and so will release dissolved gas nicely. Most good aquarium stores in town sell the Python and a seemingly identical (except that it's blue) competitive product is also available for a little less money.

With light feedings, low fish densities, lots of light, and regular maintenance, you can easily set up a thriving, beautiful tank. But you will still have some algae, and algae-eating fishes are a good idea.

### **Upcoming Programs**

**(submitted by Jeff Mountjoy, Programs Co-ordinator)**

For our January Meeting we are pleased to have Jae Hovious of Hagen speaking to our members about Hagen Aquatic Pet Products. Jay has been an avid fish hobbyist for many years and also enjoys keeping birds.

February-Setting up a new aquarium-Successfully! (Speaker TBD)

March-Open

April-Larry Johnson, HDAS-A visit to Lake Malawi-Tentative

May-Andrew Bridgemohan-The Fish Sempai-Koi & Goldfish-Tentative

June-Open

# Take Note

## **Library Update by Jeff Mountjoy**

Our club library experienced a serious growth spurt when we acquired quite a few back issues of Tropical Fish Hobbyist magazine (close to 100 issues in fact!) at last years CAOAC show in Brantford. These magazines will be catalogued and the contents summarized to make it easy for members to find an article of interest on a particular fish species or other topic. There are some really great articles. Although many of these magazines are somewhat older they still contain a wealth of information that is valuable. Some of the articles on the expeditions of the late Dr. Herbert Axelrod are particularly fascinating. A sample of some of these magazines will be brought to the next meeting.

## **Other News**

Hey everyone, please take note of the business card ads in this months' newsletter. Some are pet stores who have shown a commitment to support our club by helping distribute information about us and at the same offering our club members 10% discount off purchases in their stores when you show your BRASS membership card. Please think of these retailers when you are purchasing new aquarium supplies or perhaps that next fish or two! Supporting these businesses just makes great sense. We thank them all for the interest they have shown in our new club and the donations many have provided for our auctions.