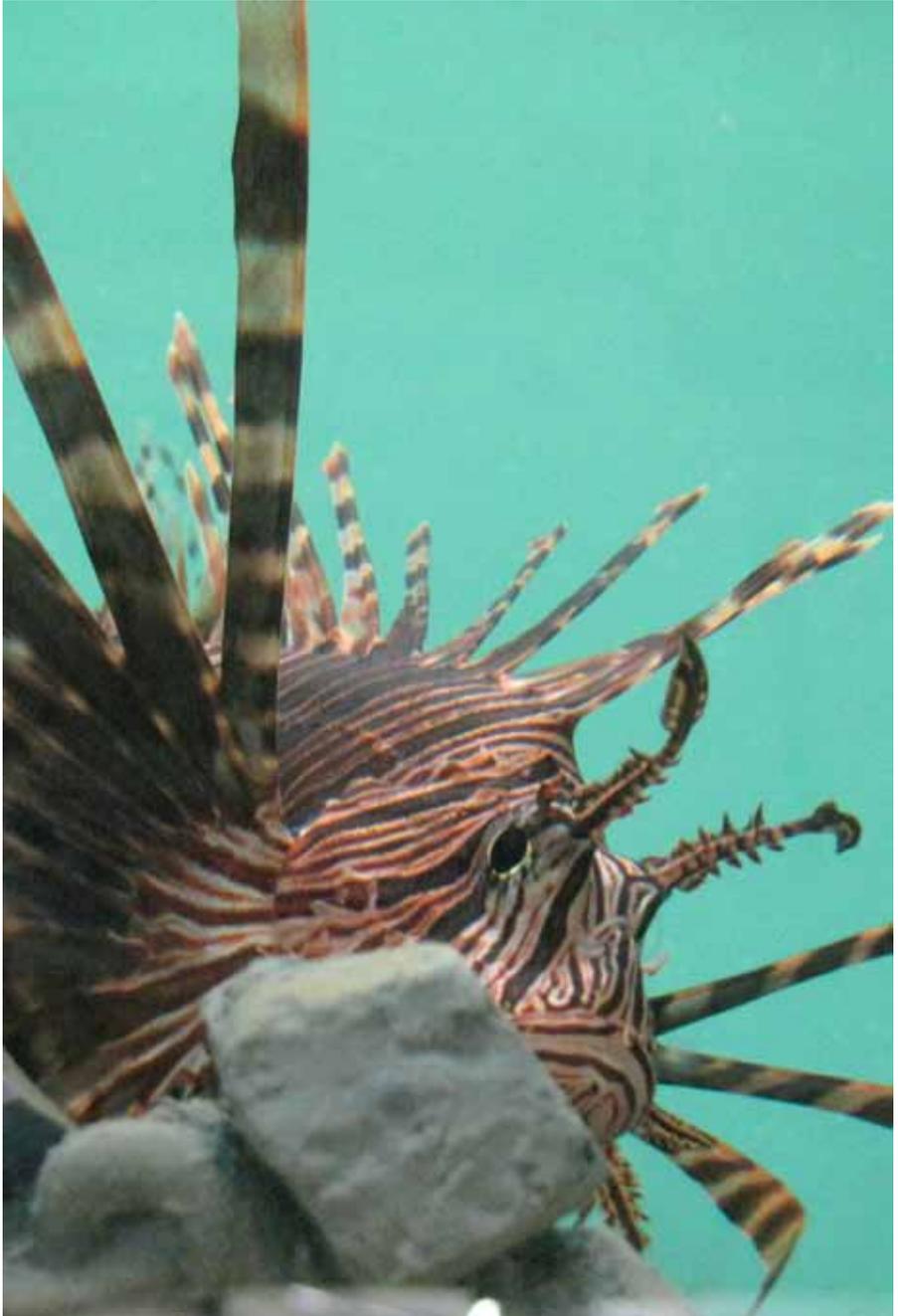


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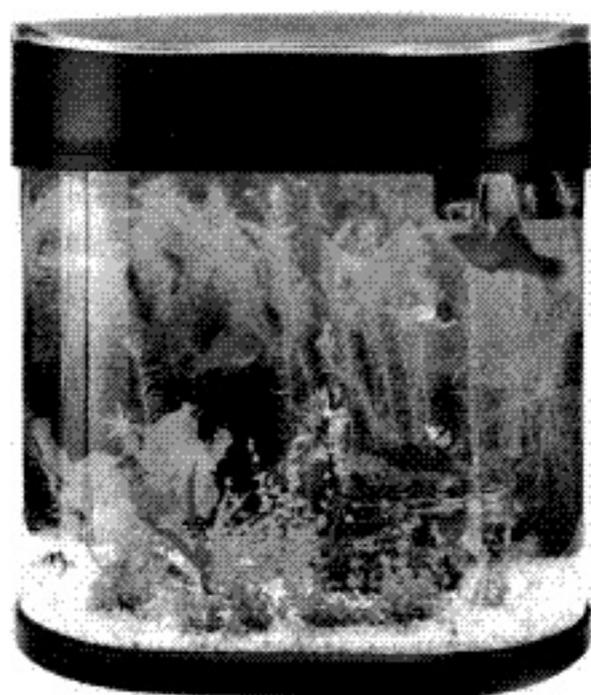
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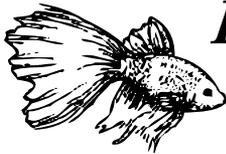
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The society meets the second Thursday of each month at 7:30 PM,
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Mohawk Rd. West near the corner of Garth. Visitors are welcome.

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Our 60th Year of Publication

DECEMBER 2010

Carla's Comments

Carla MacDonald

Hello and Happy Holidays!

It's December already. I can hardly believe it. It seemed like only yesterday I was bewildered by the beauty of my ponds and here we are talking about Christmas! We are having a Neighbour to Neighbour food drive and a fish table raffle with donated items to help raise money for the food drive. Please donate if you can. We are also having a great night of fun. Noel always provides us with a great game for the December meeting. Also, remember to bring your appetite. Pizza and wings are the treat for the night. Bring a desert or treat to share if you like.

If you are looking for something to do on the weekend of Dec 3, 4, 5 the Hamilton and District Aquarium Society will be representing the pet industry at the P.E.T.S. tradeshow at the

Ancaster Fall Grounds. Come and listen to Frank H speak on taking care of fish in the aquarium. Check the website for more information.

I'd like to thank Sue B for her presentation last month on Dwarf African Frogs. Great job Sue. I'd also like to thank Charley Grimes for his awesome presentations at the dinner night on Nov 13. I hope you all enjoyed this event as much as I did.

January's speaker is Bob Wright talking about his trip to Nevada last fall. It is also election time for the club. If you are interested in a position on the executive please let me know. There are also positions available that we need help with.

We have set up a dinner night at the Mandarin for any club members and their guest for Thurs. Dec. 16. A sign up sheet will be available at the meeting.

Hope to see you all there, Carla

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How to Become a Fish Breeder

Charles Drew

So you would like to become a fish breeder. Well that can be easier than you may think. There are many fish that will breed readily in our tap water. Other species may require soft or soft and acid water conditions. This will lead you to the expense of buying an RO unit as rainwater in this area as well as many others is usually of poor quality with many contaminants. For acid water many use a PH down product this may work well for some fish but others benefit from the tannins that come from peat moss or alder cones. What you need depends on what fish you decide you would like to breed.

Before breeding any fish you should first research it in books or on the internet. Finding out all the available information on the species as well as breeding habits and techniques used by other hobbyist can help ensure success.

One of the easiest families to breed are the cichlids, especially the Africans. The mouthbrooders can be kept in a large tank and the females removed to a tank of their own when it becomes plain to see that her jaw is dropped and dark with a mouth full of fry. The fry are very large and in most cases easy to raise. Many people feed the fry micro pellets to avoid the expense of hatching baby brine shrimp.

The substrate spawning Africans of Lake Tanganyika are also easy to spawn in tanks of at least 15 gallons, although bigger is better. The tank should have a sand or gravel bottom preferably of an alkaline type such as chicken or turkey grit from a farm store. Pile in lots of rocks and broken clay flower pots to give them places to hide and breed in. Most of these fish do not eat their fry and the tank will soon be teeming with fry of all sizes. The tank should be fed with some live baby brine shrimp when the parents start to guide their little school of fry around the tank. Many of these fish are very colourful and don't grow much larger than four inches.

There are a number of easy West Africans such as Kribensis and tetras such as the Congo Tetras that are easy to spawn. The tap water

should be mixed with about half RO to help trigger spawnings. A 15 gallon tank is about the right size for spawning and the first few weeks until the fry out grow the tank. The fry of these cichlids and tetras can eat baby brine shrimp as a first food.

Central American cichlids as well as domestic bred angels and many of the larger South American species will spawn in tap water. The Rams and Apistogrammas require soft, slightly acidic water and temperatures in the mid to high 80'sF. Discus and wild angels have about the same requirements.

Most of the Gourami species such as the Blue, Pearl, and Dwarf are all easy to spawn in our local tap water. This includes bubble nest breeding bettas. The eggs all hatch on about the third day and the tiny fry swarm under the nest under the watchful eye of the male a few days later. Most people fail at this point as the fry require a good source of infusoria for several days before they can eat micro worms. This is followed by live newly hatched baby brine shrimp.

Green water is a good source of infusoria. A gallon of water from a fish or farm pond or lake can make a good culture by simply adding a half inch square cube of turnip.

You may also use one of the commercial liquid fry foods. The way to feed it is to shake the container first and then put two or three drops in a small glass of water. Stir it well and then broadcast it into the tank. Do this twice a day but if the tank starts to get cloudy stop feeding until it clears. The potential to raise up to several hundred per spawn is here so why raise a handful.

Danios and barbs are easy to spawn fish. They can usually be spawned in tap water but the spawns will improve if you use 1/3 to 1/2 RO water. A grate made from egg crate lighting grate covered with plastic needle work mesh placed on the bottom of a five or ten gallon tank with a yarn mop or java moss on it is all you need. After two or three days peek under the grate and you should see eggs or even fry. When they are free swimming start them on infusoria.

Tetras vary from easy to hard to impossible. Easy ones such as Blood Fins, Swordtail Characins and Diamond Tetras will spawn in our



tap water. Most of the others require much softer water such as my mix of 1/3 tap, 1/3 RO and 1/3 RO peat water. Tetras such as Neons and Cardinals require straight RO, peat water, and total darkness. They are spawned over a grate and the fry require infusoria as a first food. They are the most challenging of fish to spawn and raise. To make peat water you are best to buy a new plastic garbage can. In it place six inches of garden peat moss. Fill the can with RO water and allow it to sit for several weeks. It will be cloudy at first but eventually clear. Place a brilliant filter sponge on a siphon hose to run the water off clear and clean. The moss will give you loads of good water without having to add peat for a long time. Just be sure to place the can on a stool or platform so that you can siphon.

Killifish too can vary from hard to easy and come from both hard alkaline water to super soft and acidic water. Most spawn in mops, some prefer floating mops and others bottom mops, so it is best to check the requirements of the species before you attempt to breed them. Many have a hatching time of about 12 days but there are many that can take months. Killies are also divided into Annual and Perennial. The annuals in the wild live less than a year and their whole cycle depends on the dry and rainy season. Some annuals are spawned in mops and the eggs packed in moist peat moss. Others, such as the Notho's and the South American peat divers, are spawned directly in peat. After a week of spawning the moss, hopefully containing eggs, is dried to just damp by placing it between layers of newspaper for a day. The moss is then sealed in a plastic bag and placed on a shelf for the required time for the species that can range from two to six months or more. These fish are not for the impatient.

Corydoras can vary from easy to impossible many commonly seen ones can be spawned in just tap water. A fifty percent water change with water a bit cooler is all that is needed to trigger them. Many others require half RO water or cold water changes plunging the temperature to as low as 65 degrees F. An exception is the *C. sterbai* that spawns at 82 degrees F. Many spawn mainly on the glass and just as many spawn in mops. Some are undecided and will spawn in both places if given a choice. Still others will spawn on the under

sides of aquarium plant leaves. If you are not sure give them the three choices. If there are lots of eggs you may want to move the parents. Many spawnings the eggs are few and you are best to move them to a bowl with water from the spawning tank. Add a drop of Methylene Blue and an air stone and place it on a dimly lit shelf. Most eggs hatch in five days and three or four days later the fry should be started on micro worms.

With plecos you enter new territory. The common bushynose are easy and breed endlessly in just tap water if given a tank to themselves. A cave of almost any type will do but a round one is often preferred. The fancy L number plecos are indeed a challenge and can be the most frustrating. Most require temperatures in the mid 80's as well as soft and acid water. Large water changes of 50% for five days in a row and then a stop for two weeks and then start all over again will sometimes bring results but what works for one person does not always work for another. They are a real challenge.

With all the new laws coming through local breeders may one day be the only reliable source of aquarium fish. Are you ready for the challenge?



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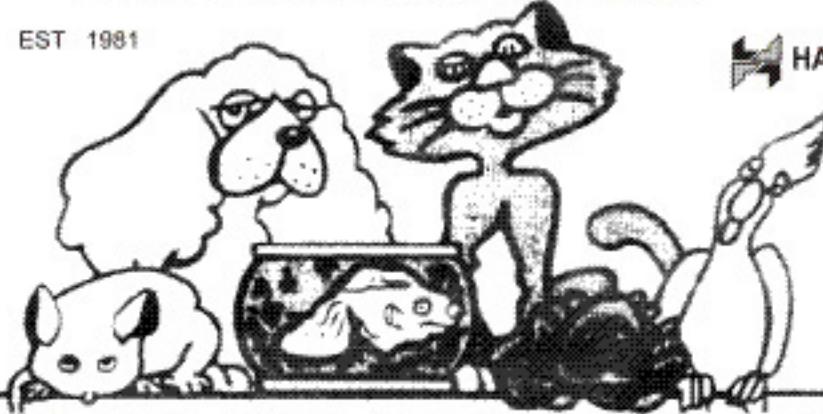
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December 1990 – President Tom Tota postulated in his President’s message that winter is probably the best time of year to breed your fish. He specifically pointed out livebearers or Danios for the novice breeder to try, and for those looking for more of a challenge, Angelfish. As far as I can tell, there were only two articles this month, one on Cryptocorynes and the following written by none other than President Tom:

Return of the Living Slime

Tom Tota

You buy this beautiful plant for your aquarium, but, unknown to you it harbours a plight which will give you hours of grief a week or two later. That’s when you notice dark green patches on the tank walls and on your new plant. You bring in the algae brigade, a few mystery snails and some plecos. A couple weeks later, everything is covered with this stuff as if someone spilled a can of dark green paint in your tank. You feel like court marshalling the algae force. At this stage your blood pressure starts to rise, your hands are quivering and in mad desperation you try to remove it yourself. As you try to remove the stuff, pieces are floating all over the tank but the tank looks a little more respectable. A week or two later, you’re no better off and it’s as if nothing had happened. This was the last straw, you blow your top and now you go for the heavy artillery. You get your shot gun and put your tank out of its misery!

What is this STUFF? It seems to be indestructible, multiplies if you try to take it apart, and it grows with amazing speed. Surprise, Surprise! What you have is what I call SLIME ALGAE. You’ll know why I call it that if you ever had to handle this green goo. Actually, I believe it’s a type of blue-green algae. Who cares??

HOW DO YOU GET RID OF THE STUFF???

Let’s take a closer look at the slime algae. Unlike its Hollywood cousin it doesn’t consume everything in its path but merely covers it. And it does a good job at that! It will cover everything that’s stationery, from the walls and the bottom of the tank to even the water’s surface. It will cover rocks, gravel, driftwood, and even plants. The only place



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you won't find it is in midwater, lucky for your fish. Except for the appearance of your tank the algae doesn't seem to be harmful in any way unless you keep live plants. The slime algae essentially smothers your live plants to death. It's virtually impossible to remove and you end up throwing the whole plant away if it doesn't die first. It seems to me that there are at least three ways that the slime algae can be introduced to your aquarium. The first, as I hinted before, is through the introduction of a new plant and it is attached to it. The second, is through normal tank maintenance where you use a sponge or semi-abrasive material to clean your tank walls of algae. Small pieces of the slime algae get caught in the fibers of sponge while cleaning an infected tank, then using the same sponge you clean another tank thus releasing the algae pieces. Finally, where the algae is floating at the surface. The algae will usually float on the water's surface if there are a number of floating plant leaves.

Unfortunately, the slime algae is much easier to introduce than it is to get rid of. As many of you have found out, nothing (at least that I know of) likes to eat the stuff. That leaves you two other commonly prescribed remedies in controlling algae, which are: competition from other plants and controlling the amount of light.

One method of reducing the amount of algae growth is to introduce enough plants so that they are competing with the algae for the limited amount of nutrients in the tank. The more complex plants are able to extract their nutrients more efficiently thus the algae have less nutrients, and in turn grow less rapidly. I haven't found this method effective at all. I guess it's because this type of algae is quite different from those we are accustomed to.

By limiting the amount (hours) of light the tank receives can help reduce the amount of algae in your tank. Algae are plants and need light to exist just as your other aquatic plants. The difference is that your complex plants can withstand long periods of no light better than algae, thus reducing their opportunity to grow. I've had some mixed results using this method. I have noticed that the slime algae is greatly affected by light; so much so that the algae contracts in the dark and expands once the light has been turned on. Here is something we can use against the slime algae. I have kept a tank in

complete darkness for a week. By doing so, I was able to reduce the amount of slime algae in the tank considerably, but there still was some traces of it left. I haven't tried to keep the tank in complete darkness for any longer period for fear it might affect my plants. It may work, but I wasn't willing to take the chance.

I did find something that is quite effective on the slime algae, and I found it by accident. I was breeding some Angelfish at the time and the rearing tank had some algae. I set up the tank for Angelfish eggs, including the addition of methylene blue. After a day or two I noticed that the algae had shriveled up into small little clumps. I usually add enough methylene blue to turn the water a deep blue. I figured that the algae must be part bacteria for it to be affected so much, although the reduction of light through the staining of the water probably contributed as well. A few months later I did find the algae back in that tank and I'm not sure whether some of it survived or if I had reintroduced it somehow. I have tried this method in some of my other tanks with good results. In some cases I had to use methylene blue a second time, a couple of weeks after the initial dose. The algae that was floating and those that are on the tank walls above the water line were not affected so you have to physically remove them.

There are some drawbacks to using methylene blue. The most important is that it will destroy the friendly bacteria in your biological filter. The other drawback is that the methylene blue may adversely affect some plants. In my case, the only plant I killed was Java Fern. If you take precautions for your filtration this treatment should work for you. You could also use this method to prevent the introduction of the slime algae. How? By soaking a new plant in a dark blue solution of methylene blue for one day before placing it into your tanks. This is much better than treating an established tank.

The key in combating the slime algae is to prevent it from spreading into other tanks. You have to view the tank affected by slime algae as if its plagued with a disease like Velvet. This way it has no chance of being reintroduced. Like diseases the best way to combat slime algae is to prevent it. There may be other treatments useful against the scourge but methylene blue works for me.





Photos: Charles Drew and Albert Van Montfort

DECEMBER 2010



Odds 'n' Ends

EVENTS

<i>December 12</i>	CAOAC Meeting, Potluck Lunch - Waterdown
<i>January 16</i>	CAOAC Meeting - Waterdown
<i>March 6</i>	H&DAS Spring Auction
<i>March 27</i>	Brant Aquarium Society Show and Auction
<i>May 20-23</i>	CAOAC Convention - Brantford, Ontario

MEETINGS

<i>December 9</i>	December Holiday Meeting
<i>December 16</i>	Members dinner at Mandarin
<i>January 13</i>	January Meeting, Speaker - Bob Wright

Submissions

Articles are needed for every month's bulletin. Topics can include breeding, nutrition, water quality, do-it-yourself techniques, and amusing anecdotes. We have kicked off a new practice of using a hobbyist's photo for the cover of the e-bulletin. Hobbyist photos are needed for future months' bulletins. They do not need to be show quality fish or professional quality photos. Please send submissions to bulletin@hdas.ca



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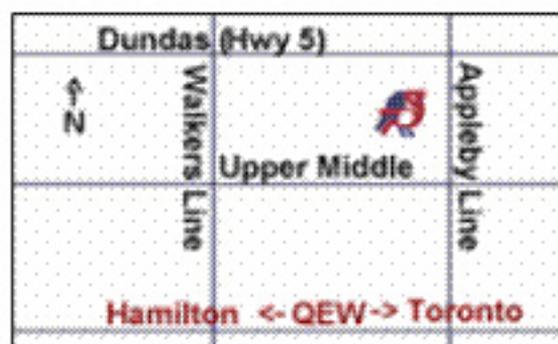
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