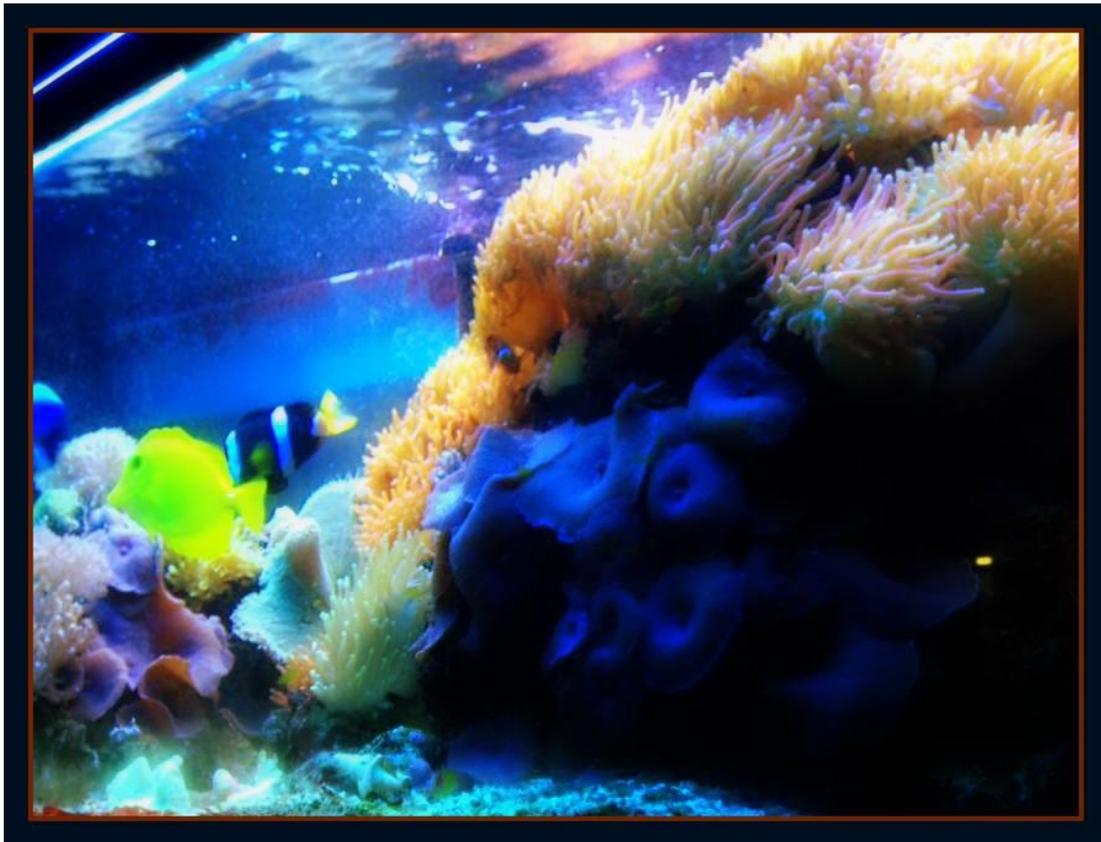


ST. CATHARINES & AREA AQUARIUM SOCIETY NEWSLETTER: “The Scat”



JANUARY 2017: Vol. 29 #05



Saltwater My Way

Once upon a time there was a 75 gallon tank. What to do? “Salt water”, I said. Having enjoyed freshwater aquariums for years, I decided 25 years ago to take the plunge and set up a marine tank.

While there are no doubt many approaches recommended on how to start-up in saltwater, and admittedly, I don’t consider myself an expert in marine or reef aquaria, this article describes my own experiences with what began as a saltwater tank and eventually evolved into a reef tank.

A reef tank (e.g. with corals and anemones) is slightly more involved than a freshwater tank or even a fish only with live rock tank, since factors such as inhabitant compatibility, water conditions and lighting play a more significant role, as you will see. In this regard, patience and keeping things simple has rewarded me over the long term.

Initially, I set up my tank with just a few saltwater fish and some live rock which served to help me grasp the basics of marine aquaria. For those who are wondering what “live rock” is, it is rock from the ocean composed of hardened skeletons of dead coral. It is not living. The rock is considered *live*, and quite useful, in that it houses colonies of beneficial live bacteria and acts as a very efficient biological filter in a marine tank. Live rock can also aid in stabilising pH and simulating the calcium levels of ocean water (1).

Generally speaking, starting out with a larger tank will simplify life for you later on. My 75 gallon tank offers the advantage of a larger volume of water which is easier to maintain than a smaller system would have been. Perhaps a few words of friendly advice are in order at this point. Before you invest in and set up a salt water tank, research the needs of your desired fish and invertebrates to ensure from the outset that you have the time, appropriate habitat, patience and resources for their care. Things can become complicated if you are not careful, but the thrust of this writing is that they need not be. Research may take the form of several avenues, from consulting articles to asking a lot of questions and listening to experienced marine sales agents in respected saltwater/reef stores as I did. Don't be shy to ask saltwater/reef hobbyists in the Aquarium Society for pointers too. I resisted the temptation to add all the tank inhabitants at once and instead stocked it slowly. In the beginning, I bought two T-5 HO double lights, a bucket of salt, a \$5.00 hydrometer and some live rock. I chose to add a *Fluval* 406 filter to my already existing *Fluval* 405 filter. Both of these filters are 100 gallon filters working simultaneously in my 75 gallon tank, and together they are filtering 680 gallons of water per hour, providing my chemical and physical filtration. My “clean-up crew” consists of a shrimp, a few Turbo snails and of course myself. The Turbo Snails (*Turbo fluctuosa*) are much appreciated since they make short work of large amounts of troublesome algae. I also scrape algae from the glass myself every three days. For a very long time, I did not use a protein skimmer at all. Key contributors to my success have been the high filtration rate of my tank relative to my tank's low bio-load, thorough filter maintenance (once per month), and regular tank care; these factors may well have permitted me to do without the skimmer in the beginning. I carefully and slowly created a 75 gallon corner of the ocean for four clownfish and a yellow tang to call home. Twenty-five years later they still exist.

I have gradually added in a few anemones and corals – the emphasis being on a “few” - and subsequently incorporated a skimmer. My anemones are Rose Bubble Tip Anemones (*Entacmaea quadricolor*: See right). The typical colours for Bubble Tip Anemones are various hues of browns or greens; the red hue on the end of the tentacles is considered a slightly



more unusual colour (2). It should be said at this point that the rule of thumb is not to add anemones until the tank has matured - usually six months to a year after set-up (3).

A mature tank does not merely mean “cycled”; it means the water parameters are stable and less likely to fluctuate. Anemones are very intolerant of such instabilities (4). Researching the compatibility of all your tank inhabitants should be underscored here again. Determining what creatures will be “reef compatible” is a key success factor in the reef tank - not all fish/invertebrates are safe. They may nibble at the corals you have. Certain corals are incompatible with other corals as they may sting, burn or digest neighbouring corals (5). Corals may also have different lighting requirements. Research into compatibility should include any anemones because some will eat fish. Similarly, your tank’s “clean-up crew” e.g. crabs, shrimp or snails must be reef safe.

My tank features Mushroom Corals (*Fungia fungites*: See top right), Pulse Corals (*Xenia*: See lower right) and Hammer Corals (*Euphyllia ancora*: See far left). Mushroom Corals are a smart choice for novice reef



hobbyists as they are hardy and more tolerant of variances in water parameters (6). Pulse Corals (*Xenia*) are peaceful and will move in the tank to find a spot which best suits their needs, if required (7). Hammer Coral is easy to moderate in level of difficulty to keep, but will do well in proper water conditions. This variety of coral is capable of stinging neighbouring corals, however, so they require some space to grow (8). Mushroom and Pulse Corals are soft corals whereas Hammer Coral is a stony coral. Measures may be required to ensure soft and stony corals can successfully co-exist in a closed tank environment, because the soft corals may emit a toxic chemical to keep stony corals from encroaching. These toxins may be mitigated by activated charcoal to help absorb it (9). I change my charcoal once a month in the filters. Additionally, I have limited the mixing of soft and stony corals. The greater filtration of my tank and faithful water changes all assist to control this potential issue with impurities. I would like to state here that I don’t dose my own reef tank with supplements and it works for me – *that may not be the case for other reef enthusiasts depending on their specific variables and*

coral species. Generally, soft corals do not have the calcium demands of stony corals (10). Again, I am replacing two buckets of water every three days which helps to replenish the tank's trace elements.

A discussion of my corals should include my lighting. Because the intensity of the lights diminishes with time and their colour spectrum may be affected, I replace my lights about once a year and try my best to time this with sales at Big Al's. Failing lights can jeopardize the health of the corals depending on them.

Keeping fish populations low can limit the need for complex filtration and maintenance in saltwater or reef tanks. An aquarium with numerous fish and corals requires a lot of care. I'd like to reinforce that by taking the slow approach with a patient love for your tank and by not adding a lot of varieties of corals and fish can still result in a beautiful tank you will enjoy without a lot of complications. It has for me.

Article By: Jackie Hayes

Cover Photo Courtesy: Jackie Hayes

Contributions By: Dave Holland

Footnotes:

1. reefaquarium.com "Setting Up Your First Marine Aquarium". 2012
2. Corallore.com "Reef-keeping blog". 2015
3. saltwatersmarts.com Kurtz, J. "Why Many Marine Fish Benefit from Mature Tanks". 2014
4. Barrington, K. "Guide for Keeping Anemones in a Reef Tank". 2015
5. Goldstein, R. Marine Reef Aquarium Handbook 2nd Edition. 2008
6. Successfulreefkeeping.com "Best Beginner Coral Choices".
7. Ratemy fishtank.com "Beginner Coral Species: Low-light corals"
8. Paletta M., peteducation.com, "Placement of Corals in the Reef Tank". 1997
9. saltwateraquariumhobby.com "Aquarium Filtration & Activated Carbon"
10. Vanderwal M., "Soft Corals Paved the Way for Modern Reef-keeping" Reef-keeping Mag 2008

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Upcoming Events:

- Sunday February 26th, 2017, Tropical Fish Club of Erie County Spring Auction, at the Chicken Coop (299 Leydecker Rd., West Seneca, NY)
- Hamilton District Aquarium Society Spring Auction, Sat. March 25/17, Royal Canadian Legion Branch 551 (79 Hamilton St. N., Waterdown, ON)
- **CAOAC Aquatic Expo 2017, hosted by Hamilton & District Aquarium Society, May 19-21 at Holiday Inn Burlington Hotel & Conference Centre. Excellent speakers.**
For tickets & more information see <http://hdas.ca/convention>
- September 22-24, 2017, Cataclysm 2017 (Mid-West Catfish Show), <http://catfish-cataclysm.com>



A Few Words from the President

Well welcome to 2017! Our December Holiday Party closed out another calendar year at SCAAS with our annual holiday potluck, and it went off without a hitch – except maybe we could have used a few more of those meatballs we were lined up for! We handed out our fishy presents and celebrated the acknowledgement of our many sponsors and benefactors; without them we would not exist. I hope you enjoyed your own holidays and are looking ahead to another year with us and many new topics we've in store for you. We will kick off 2017 with a presentation by our own Ryan Koch on "*The Basics of a Planted Tank*", Monday January 9/17.

Dave Holland was accepted as the new SCAAS Newsletter Editor with his first issue in December 2016. I would like to welcome him officially on behalf of the Executive to the team. Dave is interested in articles from our group for the Newsletter and also for volunteers to be a part of the "Getting to Know Your Members Segment". There is a rewards program for people who participate in either one! Contact Dave at scaaseditor@yahoo.com or in our meetings.

We continue to have some vacant positions for members to fill. We do need a Club Photographer for starters and positions can always been created for those who wish to become more involved. As with any organization, more hands make less work.

We are also asking members in this Newsletter if they have any suggestions or new ideas for the Executive with respect to the Club. Please email your suggestions to Pat Shriner, 2nd vice-president and copy to Pat Bridges, membership chair (gpshriner@cogeco.ca ; tp.bridges@sympatico.ca). They will accept written submissions/photocopies also. We appreciate your input and thoughts. I look forward to seeing you all again Monday!

Paul Paradis



Monday January 9 SCAAS Meeting: Speaker Ryan Koch



THE BASICS OF A PLANTED AQUARIUM: this presentation featuring Ryan Koch will be a guide for those who would like to begin dabbling in planted tanks, but at the same time not overwhelm them with so much information as to make the subject appear daunting. A quick search online for this type of data will bring up confusing terms like high-tech, med-tech, low-tech, “ferts”, CO₂, full spectrum, par values and even scary plant names like *Alternanthera Reineckii* to *Heteranthera zosterifolia*. Ryan will explain the benefits of the planted tank and how it can be created by beginners easily with pleasing results. Afterwards, you may find yourself ready to auction off your plastic ones! Conveniently, our monthly auction will follow with plants, fish and aquarium accessories.

January Jar Show Data & December Results:

For the January Jar Show, the feature category will be plants, but every month is also open choice for fish. Best of Luck!

December Fish of the Month – “Open Choice” -While there were no official jar-show winners for December, Paul Paradis was the “unof-fish-al” winner with knitted goldfish:



Neolamprologus Multifasciatus



This little shell dweller cichlid is the world's smallest known African cichlid from Lake Tanganyika and one of my favourites. Most people think of African cichlids as large beautiful coloured fish. I think of the "*Neolamprologus Multifasciatus*" or Multis as they are known to fish lovers. While I have kept them several times over the years, they still fascinate me.

Multis are unique little cichlids. No two have the same striped pattern. They may be small, but compensate for their size with their attitude. The male is not afraid to defend his 6 inches of territory around his chosen shell. The average size for a mature male is 1.8 inches whereas the female will only grow to 1.4 inches. In the wild, this fish lives in rather deep waters close to the shores where the substrate is softer and empty shells of snails may be easily found. Multis will use the empty snail shells to breed/hide in (shell dwellers). (1)

I bought a small colony of five fish and shells at the Peel Regional Aquarium Club Fall Auction. Since there were only five fish, I felt a 15 gallon long aquarium would be suitable for them. I set up the tank with about an inch of black silica sand, a dozen or more snail shells, several small java ferns, and a large clump of java moss. For filtration, I placed a cycled medium-sized sponge filter in one corner as well as a small internal canister filter in the other.

The bag from the Auction with the Multis was only labelled as a colony of five fish, so I had no idea how many of each sex I might have. Several days of close observation revealed there were two females, two males and one too small to sex. It is recommended, however, to have more females than males.

I have read Multis like to rearrange their shells and the sand. These little fish defiantly re-arranged this tank to suit their taste. Within a week, they had moved the shells, and built hills and valleys of sand all over the aquarium. Some of the shells were completely buried, and others had little hills in front of the openings. Just to be on the safe side, I added several more shells. I discovered if you check frequently and carefully, you can find the right-sized shells (approximately the same size as escargot shells) at certain dollar stores.

Multis can be skittish and will head for their shell at the first sign of perceived danger. As I often use guppies to expedite the cycling of a new tank, I had done so with this 15g long. Sometimes I leave the guppies in the tank after introducing the main fish, and other times I remove them after a week or two. In the case of the Multis, I found that the guppies acted as a type of dither fish making them feel more at ease. However, I later removed the guppies when I thought the female Multis were in their shells with eggs/fry. The two female Multis had taken up residency in the two largest shells. The females were smaller and their stripes were lighter in colour than their male counterparts.

Neolamprologus Multifasciatus in general are not brightly coloured, but exhibit very unique striped patterns. Since my fish room is warmer than the other rooms in the house, I didn't see the need to add a heater to the tank. My water



had a pH of 7.8 so no adjustment was needed. Multis should be kept in water with a pH ranging between 7.5 - 9.0. These small African cichlids are not fussy about their food as long as it isn't too large; I alternated between freshly hatched brine shrimp, frozen brine shrimp, white worms and flake food. It was fun to watch them eat the white worms because it was like watching kids eat spaghetti - sometimes the worms were longer than the fish!

The first sign of *Neolamprologus Multifasciatus* fry was after I had been keeping these fish about three months. Three small replicas of the adults seemed to appear out of nowhere. They were hard to see because the fry were the same colour as my black sand. A few days later, I observed five more fry hiding beside their shell. Given the least bit of movement near the tank, the fry would scurry into a nearby shell for cover. At this point, I added micro worms to the diet of the Multis. I would try to release the micro worms near the shell so that the fry didn't need to hunt far for their food. I discovered the adults enjoyed the micro worms too. Water changes were now a challenge. I could not use a python tube system to clean the gravel since the fry were tiny, so I made use of my handy aquarium turkey baster. The water changes took longer, but at least the fry were safe.

For the first few weeks, the fry seemed to double in size every week. They did not start to change their colour until a month old. Their colour faded from black/gray to a lighter gray. I added more shells to the tank so that the new fast growing fry would have a choice of homes.

Since that time, there has been a second spawn of Multis. This time, I have only seen three fry coming out of one shell. There is one dominant larger male in the tank. The fish from the first spawn are still young so I am not sure their sex. I have found that to breed this fish, if you just leave them alone, they will sort themselves out and before long you will have fry.

This small Lake Tanganyika cichlid is a great fish to have in your fish room or that extra tank in the living room. They do not require a lot of space and will entertain you for hours.

Article By: Catherine Salmon

Photo Courtesy (Aquarium): Catherine Salmon

Footnote 1: seriouslyfish.com

An Aquarium-side Chat with S.C.A.A.S. Member: Phil Barrett

I have kept fish for almost 40 years now. I began when I was 7 or 8 years old with a 5 gallon kit I bought by saving my allowance and doing chores. My first fish were basic tropical fish and goldfish, but that was enough to stoke my continued interest in this hobby.



The most aquariums I have ever kept at one time was 9 tanks, ranging in size from 6 gallons to 110 gallons, scattered throughout the main floor of the house. At that time, I was keeping fancy goldfish, as well as South and Central American cichlids. I'd have to say my Flowerhorn and my Midas cichlid were my favourites. To me, the large predatory species have more personality than smaller schooling fish and perhaps that explains my interest in them.

Currently, I only have a 29 gallon tank with fancy goldfish. I closed down my saltwater tank this last fall due to my limitations now to properly care for it given my responsibilities at work and time I dedicate to other hobbies.

In my basement, I have built and insulated walls for a complete fish room and my long-range plan is to house at least 30 tanks there ranging in size from 5 gallons to 75 gallons. My next step is to install radiant floor heating as well as a central air and water change system. I plan to use sponge filters in the tanks. I believe that by properly insulating the room and heating the room, rather than the individual tanks, the end result should prove to be more energy efficient. I have not yet decided on the type of lighting to install. While LED lighting is more expensive to buy, it is cheaper to run than shop lights. I don't mind paying a bit more upfront, provided they offer long-term energy savings. I have every intention on remaining in the hobby for many more years. Current stocking plans include keeping a wide range of fish from simple live bearers to rare and aggressive predators. In closing, I think one of the best things about keeping fish is that it's a hobby one can enjoy well into old age, even if on a smaller scale, and, of course, I have met and continue to meet some good friends.



Ask Larry Lobster!

This new segment offers anyone a chance to pose questions via email submissions to “Larry Lobster” about their aquarium. Opinions will be sought to help answer the question by various resources, from veterans, those with experience and reliable online research. Answers are “friendly opinions” only.

Dear Larry Lobster: *While visiting friends in Asia, we noticed women with their feet in special spa-like baths at the Singapore Airport. The baths had many small live fish in them. The agent told us it was a beauty bath. What exactly is this treatment and what are the fish? Is it safe? -- Thank you Sandy*

These fish pedicures to which you are referring have long been a popular in Asia. This pedicure, which is meant to leave clients with smooth and attractive feet, is spreading into the Western World and there are around 280 fish spas in the UK alone. A treatment costs £45 (\$60 USD or \$78Cdn). It takes about 150-200 gara ruffa fish (or “doctor fish”) to clean the dead skin from a person. The pedicures have been banned in some areas over here due to fears that infections could spread via open wounds/disease transmission. Tubs can’t be cleaned between clients with the fish in them; the fish cannot be disinfected between baths; gara ruffa fish are expensive so they are used many times with various clients increasing chances of disease transmission; the fish isn’t native to North America and could threaten native flora & fauna if released; the fish must be fairly hungry to eat skin which “may” be defined as animal cruelty; and Chinese Chin Chin fish are also used instead - sometimes problematically. The gara ruffa fish is a member of the Cyprinidae (Carps) Family and has no teeth, even when mature. It typically grows 10cm/4" and is a freshwater fish found in much of the Middle East. It has a long history of resolving dermatological conditions by skin “nibbling”. Temperatures in its natural habitat are said to range from 15-28C. In hot pools where bathers seek treatment, the fish “allegedly” lives at 37C. The Chinese Chin Chin (among other fish) is often passed off as the gara ruffa because it is so much cheaper. However, once the Chin Chin is about 6cm, it grows sharp teeth and is capable of biting and drawing blood. There is quite a bit of controversy swirling around this beauty trend. It can also be done full body too. See the quick video below.

<https://www.youtube.com/watch?v=xIQQnwNdvJg>

Baute N “Little nibblers: Fish pedicures popular but controversial” The Star. Je 30/10
Geoghegan, J. “Fears fish foot spa pedicures could spread HIV and hepatitis C”. Mailonline Oct. 18/11



Dear Larry Lobster: I'd like to have an aquarium with a few African Dwarf Frogs or maybe one frog and a few fish. What is their care and what kind of set up would you suggest – not too big – **Thanks Mike**

African dwarf frogs (*Hymenochirus Boettgeri*) are somewhat social and do well in a small group versus one alone with fish. These web-footed aquatic frogs will eat what they can fit into their mouths (e.g. neon tetras). A 10g tank with 4 African Dwarf Frogs (ADF) and a female betta would make a fun mix. Female bettas “tend” to be less aggressive than male bettas. The ADFs will view her as too big for food and she won't view them as food either. Bettas don't like tanks much smaller than 10 gallons and ADFs don't want a tank much deeper or they will have trouble breathing. Both the betta and the ADFs breathe air. The ADFs are often near the bottom although they will utilize the whole water column. Include a lot of plants in the tank and ensure the plants rise up to the surface (some can be floating). The frogs like to hide in the plants and the betta will enjoy cradling in them. They will also enjoy some driftwood, caves or terra cotta pots to hide in if they feel threatened at all and the plants serve to cut the lines of sight if there is any sporadic aggression between the betta and the frogs. You may find the frogs are more active if they know there are many hiding places. While there should be no issue with the betta and the ADFs, the odd female, may be problematic. If you see her exhibiting aggression, remove her. A tank temperature of about 26C (78F) will suit both species. The ADFs like some live food. Live black worms (available from pet store or you can order them) about three times a week will meet this need and can be fed directly to the frogs by way of a turkey baster to ensure they get them before the betta. The frogs also like sinking pellets for variety and will accept frozen brine shrimp. Two filters, a 4” sponge filter and an Aqua Clear 30g Hang On Back (HOB) filter would complement this set-up optimally. Ensure the tank has a secure lid so no inhabitants can escape. If you are beginning to experiment with plants, this could be an interesting tank in which to try growing them. One final note, don't be alarmed if you notice the African Dwarf Frogs sometimes floating motionlessly. They're not dead, but having a “lazy time” as they characteristically do.



Lindquist, Clark. Salt Lake City, Utah - Veteran Aquatic Frog Keeper & Aquarist – Consultation 2017
King, L. “African Dwarf Frog” FrogWorld 2008
www.exoticpetresources.com “African Dwarf Frogs”



Ask Larry Lobster at scaaseditor@yahoo.com



NEW! SUBMIT YOUR ARTICLE FOR A CHANCE TO WIN A REWARD THIS YEAR! Members are asked to write about their tanks, and subjects relating to aquaria. Tell us about a wide range of your experiences from building your fish room/tank to how you are planning to set up your shrimp tank. We haven't had any articles on shrimp yet and they are popular. Do you own a different fish like the Zebra Moray Eel? What's he like and what type of tank mates do you keep with him? What new creative ideas have you tried in your tank for design? Tell us about your experiences at fish stores locally or in the Greater Toronto Area. We'd like to hear about it! We are open to accepting articles from veteran members and new members of all levels and ages. Please don't worry too much about your writing style, grammar and spelling as the newsletter staff can edit. We request kindly that you include more information rather than less in writing your article as it is easier for editing purposes. For simplicity as to gauging article length, when including a photo, your article should be about two pages long when submitted, depending on the complexity of the subject. Submissions by email are welcome or if you want to submit a written article by hand in a meeting that is fine too. Please submit your article to me, Dave at the email address below:

scaaseditor@yahoo.com



Where and When We Meet

- The **St. Catharines and Area Aquarium Society (S.C.A.A.S)** meets the first Monday of the month at the Seafarers' and Teamsters' Union Hall, 70 St. David's Rd. E., Thorold, ON. If the 1st Monday falls on a holiday, we meet the following Monday (no meetings in July & August).
- The Society is a non-profit educational organization, dedicated to bringing hobbyists of tropical fish and aquatic plants together who are interested in breeding, raising, showing and/or learning more about aquaria, both at the beginner and more advanced levels. Members benefit from lectures, power point presentations, hands-on demonstrations, outings, shared advice, newsletters and monthly auctions. The club has a social aspect and visitors are welcome.
- S.C.A.A.S. is a charter member of the Canadian Association of Aquarium Clubs Inc. (C.A.O.A.C.; www.caoac.ca) and of the Federation of American Aquarium Societies, (F.A.A.S.; www.faas.info)
- More news and information about S.C.A.A.S. can be found online at www.scaas.info



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November Breeder's Award Programme :

There were no BAP Awards for the Chair to announce from the December 2016 meeting. Good luck in 2017! Thank you.

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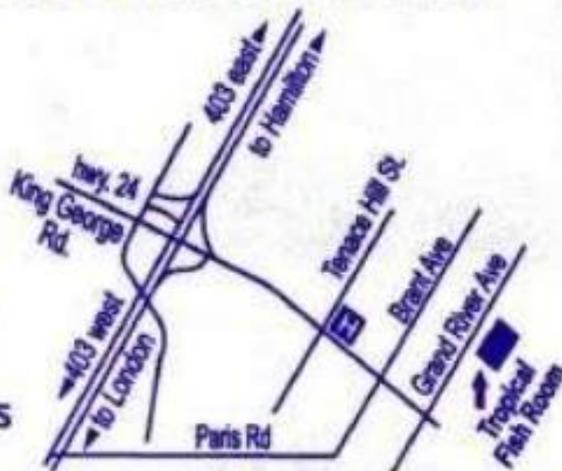
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BAGS! BAGS! BAGS!

You've heard of Wiki leaks... this is about baggie leaks...

At some auctions, there are a lot of leaky bags. HERE ARE SOME SUGGESTIONS:

PLEASE KNOT YOUR BAGS, OR USE ELASTIC BANDS.

ABSOLUTELY NO ZIP LOCK BAGS OR METAL TIES OF ANY KIND, EVEN FOR PLANTS.

DOUBLE-BAG FISH THAT ARE PRONE TO PIERCING THE BAG.

DON'T USE STICKY TAPE TO CONNECT TWO BAGS (i.e. a pair of fish), TIE THEM TOGETHER AT THE TOP OR PUT THEM BOTH INTO A LARGER CLEAR BAG.

To prevent almost certain deaths because of a too small bag - USE A BAG THAT'S APPROPRIATE TO THE SIZE OF THE FISH, **ALWAYS WITH 1/3 water and 2/3 air space in each bag.**

*BAGS ARE FOR SALE REASONABLY AT THE SIGN-IN DESK AT EACH MEETING

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