



Currents

FROM
**INSPIRATION
TO REALITY**

ERROL'S 79G
PLANTED TANK

MEET THE OVASIANS

**PIERRE
CANTIN**

BAP/AHAP
**BREEDING
RAINBOWS**

HIGHLIGHTS
**DISNEY
FISH FINDS**

GETTING TO KNOW

**BIG AL'S
AQUARIUM
SERVICES**

...and MORE!

What's wrong
with this picture?



Refer a Friend!

If you refer someone to the club and they become a club member*, you receive a \$5.00 gift certificate from the sponsor of your choice!



*Applies to new memberships only, not renewals.



Share your passion!

Participants needed for “show and tell” at upcoming meetings. Presentations to last 5 minutes. Contact Sylvia (Fishnut) for more information or to participate. email: program-director@ovas.ca

Show us your colours!

This issue's draw winner: no entries

To send us your entries:

- Scan and email to newsletter@ovas.ca
- Bring them in person at one of our meetings

Rules:

- open to children (1-12 yrs) related to OVAS members; one entry per child
- state child's name, age, and relationship to you; drawing title or description; your name on the back
- format no larger than 8.5 x 11; drawing must be of an aquarium or aquatic environment
- one draw per issue: **next draw deadline January 15, don't miss out!**

For your convenience, an entry form is provided in this issue



THE FIRST SPLASH



This month's issue is a "tankful". In fact, had I more time, there were a few more articles that could have made their way into this issue. This is a nice problem to have – too much material!

First, I had an opportunity to speak with a few OVAS members to get their insights and share their stories:

Pierre Cantin, a former club executive who recently rejoined the club, and **Errol Choo**, our resident aquabotanist who has started a new and exciting project. I had originally planned a different cover, but after seeing Errol's tank and taking a few pictures, it just had to be on the cover! We also continue our "Getting to know" series with Big Al's Aquarium Services. I spoke with Jody McManus, the Ottawa East Manager, and former OVAS executive.

This issue also features some great contributions from other members of our executive:

Joe Schwartz, the club's Vice President, talks about the treatment of fish disease, and provides insight on answering that perennial question, "How many fish can I put in my tank?"

Jasmine Landriault, our BAP/AHAP Chair, has been working hard on updating the program binder and creating a board of "Achievements and Opportunities". She's also been busy breeding some Rainbows, and has chronicled her experience while also providing an example on what's involved in submitting an entry for BAP.



For my part, I wanted to briefly share my recent experience at Orlando's Disney World. It wasn't my first trip there, but this time I kept an eye out for anything of interest from an aquarist's perspective. To my surprise there were plenty of wonderful aquatic displays that allow hobbyists to take in some "magic".

I have also introduced the use of hyperlinks in this issue of the newsletter. If you are viewing this online, any text displayed in the familiar blue-underline text is hyperlinked to a webpage. Example: [OVAS Home Page](#).

I hope you take pleasure in reading our November-December issue. Please let me know if you have any comments, suggestions, or contributions. I look forward to hearing from you.

André Martin (ajm1961)
Newsletter Chair
newsletter@ovas.ca

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OVAS CLUB NEWS

UPCOMING EVENTS



**OVAS
CHRISTMAS
FAMILY POT-
LUCK DINNER**

Saturday Dec 3rd
JA Dulude Arena
Open 5pm Dinner 6pm

OVAS will supply the **Turkey**

Rvsp us the numbers in your party and what dish you will be bringing.
Examples: green and pasta salads, rice, potatoes, desserts, vegies, cranberries, gravy, stuffing and etc.
Please label your dish with the ingredients.



Door prizes and Christmas Cheers!

PLEASE NOTE

Deadline for RSVP is MONDAY, November 28.

Either:

- Add your name and dish on the forum (click link below)
<http://ovas.ca/forum/index.php?topic=52232.0>
- Email or contact: Fishnut, Nerine, or Wandmangels
- In person at the Monday November 28th club meeting

This will be the last OVAS event of the 2011 calendar year (no club meeting in December)

**We will also be auctioning off a freshly cut Christmas Tree!
Courtesy of Joe Schwartz**

OVAS Club Meetings

Unless otherwise stated, all club meetings are held at 7:00 PM on the fourth Monday of the month at J.A Dulude Arena, 941 Clyde Avenue, Ottawa

January 23

Planted tank theme - details to come.

February 27

Photography workshop - details to come.

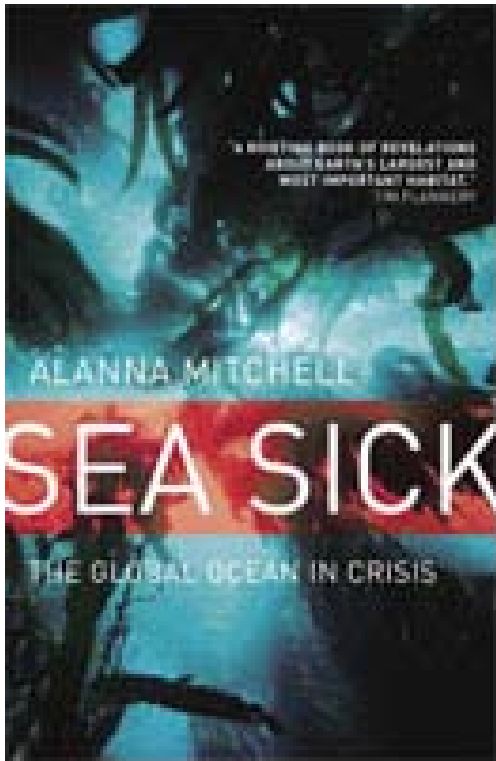
Giant Auction - March 6

Pending confirmation of the Auction Chair position being filled.

March 26

Richard Inchley from Ponds and Aquaria - details to come.

PRESENTING A SPECIAL OVAS EVENT EARTH DAY - SUNDAY, APRIL 22



Featured Speaker

ALANNA MITCHELL

Author of the critically acclaimed book:
Sea Sick: The Global Ocean in Crisis

Reserve your tickets now!

Start time: 2:00pm

Guest speaker: **Ret Talbot**, marine journalist and author

Limited number of seats available before they go public:

\$5.00 Members

\$10.00 Non-members

Contact: Fishnut or available for purchase at club meetings

[Click here to see details on the event](#)

EXECUTIVE UPDATE

Diane MacDonald has graciously offered to take on the position of Club Secretary. She was voted in at our executive meeting on November 14th. Thank you Diane for helping out our club!

Diane MacDonald, Secretary

- **Online name:** Highliner (it was the name of my first Betta; also based on the fishsticks of the same name)
- **With OVAS since:** 2010
- **Time as a hobbyist:** about 3 years as a “disciplined” hobbyist (LOL)
- **Upkeeps:** 3 tanks
- **Started because:** Jasmine (BAP/AHAP Chair) and cichlids.
- **Most fond of:** a ctenopoma named “McGrouper”
- **Dream of having:** a calvus or geophagus
- **Most jealous of:** Errol and Anton’s planted tanks or Evelyn’s cylinder discus tank
- **Enjoys most about OVAS:** the common interest of fish nerdiness, and the symbiotic learning.



What's wrong with this picture?

by Joe Schwartz



Understanding disease-causing organisms

Understanding the life history of organisms which cause disease in our fish is critical to understanding use of medication.

Medications fall into two general categories:

1. Those which actually poison the disease organism usually by blocking nerve transmission. Invertebrates have different neurotransmitters across their synapse, hence vertebrates are not affected. The nerve blocking essentially paralyzes the organism. The medications such as praziquantel, ivermectin and cupric ions (copper).
2. Antibiotics interfere with the end pathway of "DNA makes RNA makes proteins". Antibiotics block the protein synthesis pathway only in bacteria.

Antibiotics work on bacteria which have a different mechanism for their pathway than do your multicellular plants and fish. The rate of effectiveness is directly related to the speed at which bacteria are metabolizing in order to divide into two bacteria (binary fission) which is directly related to temperature. For every increase in temperature by 10°C the rate of reaction doubles, hence increasing the water temperature from 24°C to 34°C will double the rate of bacteria division. But, one also doubles the rate at which the antibiotic interferes with protein synthesis for the cell wall of the bacteria. The bacteria end up with a defective cell wall which leaks and makes living very difficult for them until they perish.

The poisons are used on larger organisms such as lice, flukes, round worms, and tapeworms. "Effective" parasites don't kill their host – never bite the hand that feeds you – but they all draw nutrient hence weakening the host fish. These parasites can be subdivided into two groups:

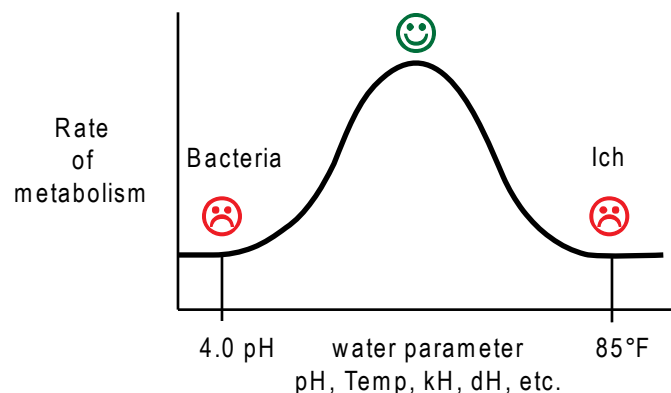
1. Ectoparasites, which live outside the host's body, such as flukes, lice and leeches, and
2. Endoparasites, which live inside the fish.

One wants to kill the endoparasites slowly because with too great a parasite load, the fish's body must discard the dead parasite tissue and may go into anaphylactic shock.

So unless you have an "epi pen" to revitalize your fish, use a lower temperature and low dose of medication or less potent medication (salt) to slowly start ridding the host fish of its endoparasitic load.

It is generally well known that "ich" can be controlled by slowly raising the water temperature to 85°F (29.4°C) and keeping it there for several days. A pH of 6.2 also makes life difficult for ich protozoans (W.T. Innes, *Exotic Aquarium Fishes*, 1966). To treat bacterial infections in Discus, Jack Wattlely recommends lowering the pH to 4.0 for 7 to 10 days. Changes in pH should be done at a rate of .25 pH units per 8 hours. Check for stress in fish throughout the process. If stress is detected, wait for fish to acclimate to the change before lowering the pH any further. After 7-10 days, slowly return the tank water to the normal pH for the species – Heckel: 5.0, Green: 6.0 (Tropical Fish Hobbyist, March 2009).

These treatments are relying on the notion that all organisms have an optimum range within various water parameters (pH, temperature, kH, gH, etc.) and that outside this range it becomes difficult for them to thrive. Hence, by raising the temperature or lowering the pH, the parasite or bacteria population is reduced to a level that the host's (fish) immune system can now take over and control the disease.



It is important to recognize that every organism carries parasites almost all the time. Sixty percent of humans have microscopic eye lash mites, so don't "bat" your eyes at me! And the total biomass of other organisms is about 10 pounds per person!

Meet the OVASians!

An interview with Pierre Cantin

Pierre recently rejoined OVAS after a long absence from the hobby. Based on his forum “introduction” in early October, where Pierre stated he was former club Vice President back in the 70s, I was curious to know more about him and his past involvement with the club. Here is the interview.

Q: So Pierre, tell me a bit about yourself - where are you from and where did you work?

A: I’m from this area - I was born in Hull. I worked over 30 years in the Federal Government in various departments. I think I must have worked for every one of them! I have been retired now since the mid-nineties.

Q: So what brought you back to OVAS?

A: I was out of the hobby for awhile, and then my cousin started her first tank. She knew I had many years experience as an aquarist, so she kept calling me for advice. I got more involved in her project and it sparked my interest into the hobby again. In doing so, I wanted to see if the club was still around - I was pleasantly surprised to see that it was. With help from Peter (Garneau - our webmaster) I was able to post my introduction on the site. My forum name is “Old Man” - I’ve been around the block a few times!

Q: Before your recent re-introduction into the hobby, how long were you keeping fish?



A: Practically my whole life. I got my first tank when I was nine. When my guppies bred for the first time, I think my parents were just as excited as I was! At the height of my hobby involvement, in the 70s and 80s, I had a fishroom with about 40 aquariums. I kept and bred mainly livebearers: several species of guppies – all-time favorite – as well as swordtails, mollies and platies. I also kept tetras and angelfish. I built the fishroom myself. I had a central air pump with lines going to each tank. I also made some of my aquariums from scratch. In those days we used some type of cement compound for the joints – we didn’t have silicone like we do today. We also didn’t have as many choices of light fixtures and filters back then. At first, most of my tanks had a in-tank sponge filter. Later on I used undergravel filtration systems.

Q: What led to you quitting the hobby, at least until now?

A: Hobby “burnout” maybe? Not long after I retired, I was approached by a friend of mine who was running the AquaZoo store on Greber Avenue in Gatineau. I was often in the store, and he knew I had experience in the hobby. I started helping out with tank maintenance. Then helping with the overflow of customers. Then one of the owners of a pet store in Aylmer asked me to help him setup a new aquarium section in his store. I designed and helped him build the room, then eventually helped him part-time as well. At that point, between both stores I was working almost full-time again. And then, one of the suppliers, Marineland, asked me to help them with product demonstrations at the stores. So I did that as well. I ended up working 7 days a week for awhile!

1986/87 Executive	
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SECRETARY.....	JACK SCHWASS.....
BREEDERS AWARD.....	MURRAY LATOUR.....
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LIBRARIAN.....	MICHEL BEAUDOIN.....
MEMBERSHIP.....	BARRY FAGAN.....
PROGRAM DIRECTOR.....	PIERRE CANTIN.....
REFRESHMENTS.....	SUZAN CRAWFORD.....

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GRAPHICS BY A.L. ASSOCIATES

And then I scaled back – it was too much. My Sundays in particular are precious to me as a practicing Roman-Catholic. Anyways, I gave up all the jobs and eventually lost interest in the hobby.

Q: So tell me about your time as an OVAS member in the “old days”?

A: I was an active member for about 20 years. I held different positions in the executive as well. In 1987 I was 2nd Vice-President and in 1988, Program Director. I assumed whatever role was needed. Getting volunteers was just as hard then as it is now – some things don't change! But many other facets of the club were different back then. For example, with email and the internet, it's so much easier to get information across about meetings. We used to divide a phone list amongst the executive team and call each person individually to tell them about meetings. It was a lot of work. But at the same time it was more personal. That's one thing I find different today. Most people now are leary to even give out their phone number or their personal email address. We live in a much more “paranoid” society it seems.

Q: In looking at the newsletters from the late 80s, there were quite a few committee members. I couldn't believe how many people were involved in publishing the club newsletter!

A: Yes, that's true. I guess technology has made some things easier. I'm not great with computers myself though.

Q: Tell me more about the OVAS meetings and activities back then

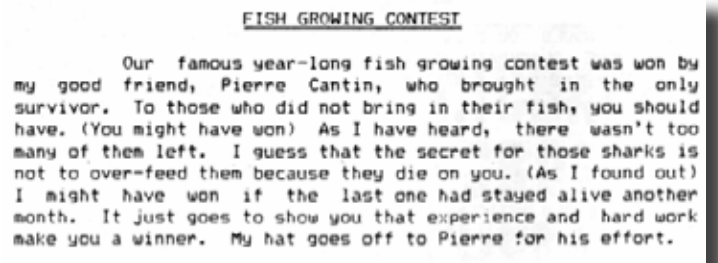
A: Our meetings were held at the National Museum of Natural Sciences (now the Canadian Museum of Nature) on Metcalfe. About 30 members would attend. We had fish bowl shows – each month showcased a different species, like mollies, bettas, guppies or angelfish. We had a “home show” competition. There were 3 or 4 categories, like “Aquarium Beautiful”, that was for the best naturally decorated tank. We normally had a 1st, 2nd, and 3rd place winner in each category. A panel of judges would go to each participant's house to rate the entries.

Q: So you had qualified judges in the club?

A: Yes. We had some pretty knowledgeable and experienced people in the club. They knew their stuff!

Q: I noticed in a copy of the club's 1988 newsletter that you won that year's “fish grow” contest.

A: [Laughs] I had forgotten about that! Yes, that was fun. Whoever wanted to participate was given a particular fish species, a goldfish or red-tailed shark, all of about the same size. At the end of the year we would bring them in to compare their size. Whoever had the largest fish won the contest. In my case, I won because I had the last surviving fish!



Q: What other story or activity comes to mind from your days with OVAS?

A: Well, the biggest thing was the club's involvement in trying to get a public aquarium built in Ottawa. We were approached by the Museum's curator of fishes ([Donald E. McAllister](#)) to help with a feasibility study. Bill McCann – our president – Jack Schwartz, and myself worked many hours over a three year period. We had conducted a detailed evaluation of different development sites for the aquarium, in particular Kettle Island and LeBreton Flats. We were also successful in finding several potential investors for the project. In the end, the NCC, who owned the land for the proposed location at LeBreton Flats, basically dragged their feet and we were never able to get a decision from them. It was the most frustrating thing I ever experienced! We all felt we lost like three years of our lives. The NCC acted like a bunch of “bas de laineux” (rough translation: squirreling money away in a secret and avarious manner). It is such a shame that this city

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does not have a world-class aquarium – it could have gone a long way in promoting our hobby and educating the public on aquatic life in general.

Q: What do you keep now?

A: I have three tanks. One is a “fun tank” (featuring an air-activated clam) with cardinal tetras, and two others housing a variety of tetras, mollies, platies and a few live plants (anubias and java fern). I am looking for nice quality guppies, but I am finding them difficult to find in Ottawa now. A few OVAS members gave me some vendor names in the Toronto area that I’m looking into.

Q: Thanks for sharing your stories with us Pierre.

A: Thank you – see you at the next meeting!



Getting to know...

In this series, we talk to the people behind our club's business sponsors



Interview with Jody McManus, General Manager, Ottawa East

Q: Tell me a bit about yourself – where are you from?

A: I grew up in Saskatoon, but I've been here in Ottawa since about 1990.

Q: How long have you been in the hobby?

A: About 26 years. My brother and I got a tank when we were kids. We had a separate dining room-kitchen area in our basement and that ended up being a fish room with about a dozen tanks. I was also part of the [Saskatoon Aquarium Society](#). When I moved here, I didn't have any tanks for a couple of years, but got back into it and at one point had about 32 tanks.

Q: What's your passion – cichlids?

A: Yes, cichlids have always been one of my favourites.

Q: I heard that you have been to Lake Malawi.

A: Yes in 2002 for about four months. I was working at Stewart Grant's collection station. I got to see mainly the southern end of the lake. I was the new kid on the block – it was like "that's right, you go catch some fish" – I'd get about four while the experienced divers would get 70! Aside from collecting, I would also help identifying and cataloging the fish. It was an amazing experience!

Q: What do you keep right now?

A: I have 5 tanks running. One mixed Malawian cichlids and a small tank of Tanganyikans. I'm also working on breeding two different types of Lake Victoria cichlids: "Chromogenys Piebald" and Haplochromis "All red". I'm also working on breeding some Ornate Bichirs. I have this



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<http://www.bigalscanada.com/Stores/Locations/OttawaEast/ottawaeast.html>

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<http://www.bigalscanada.com/Stores/Locations/OttawaWest/ottawawest.html>

group now for about 10 years and they are just becoming mature. They can live 50 to 60 years! My biggest one is about 16 inches.

Q: That's a good size fish! Do they have a big appetite?

A: They are a nocturnal fish and carnivorous. They're not overly active and don't feed that much.



Ornate Bichir (*Polypterus Ornatispinis*)

Q: Unlike cichlids! Mine could eat constantly. How often do you feed yours?

A: I feed my cichlids every 2 days or so. I've always done light feedings unless I want them to grow. I find this way it avoids any deformities and they are more healthy overall. In the wild cichlids don't eat as much protein. Commercial foods are also more fatty. That's why aquarium fish are often larger than they are in the wild.

Q: I know you also spent time in the OVAS executive. What positions did you hold?

A: From the mid-nineties to about 2004, I did a number of things: President, Vice-President, and helped with the program and newsletter.

Q: How long have you been working here at BAs?

A: It's been about 12 years, the last 10 as the manager.

Q: What makes Big Al's different from the competition?

A: Well for one thing it's the biggest dedicated fish store in Ottawa. Our store here in East Ottawa is about 5,000 square feet. We have 300 tanks and carry all the "staples" in the hobby: guppies, platties, a big selection of cichlids, nano tank fish, fancy shrimps, and exotic plecos.

Q: Is all your livestock from the chain's Florida farms?

A: No – we actually rarely order from them. We're big enough to order direct from overseas suppliers in Asia and South America.

Q: Do you do custom orders?

A: Absolutely! Of course, the more uncommon the species, the harder they are to get. But we try. We fill about 60% of custom orders. I'd like it to be higher of course, but some species are just not commercially available.

Q: What are the trends in fishkeeping right now?

A: Nano tanks are gaining popularity. Many people don't have room for a big tank. LED lighting is popular as well with the rising cost of hydro. They also provide sharp colours. Aside from fishkeeping, reptiles are getting very popular. In the U.S., they have surpassed birds on the list of most popular pets. Dogs and cats are still tops followed by fish.

Q: What's your best selling fish?

A: The most popular are guppies, neon tetras, and angelfish. Almost everyone in the hobby have owned one of those three at some point.

Q: From all the years you have been here at BAs, is there any unusual or funny story that comes to mind?

A: Well, one night during the shark feeding, it jumped out! Thankfully we managed to toss it right back in without any further incident.

Q: The shark is quite an attraction here. Tell me a bit about it.

A: It's a female White Tip Reef Shark by the name of Roxanne. The former manager gave it that name – I guess they liked the song! We've had her for about nine years. I figure she's about 11 or 12 years old. This species is found in the Indo-Pacific Ocean. She enjoys squid. The feeding is every Tuesday at 7:00 PM.

Q: What's one of your favourite tanks in the store?

A: For sheer viewing enjoyment, I'd have to say our planted tank. It has a nice arrangement and an assortment of fish: Angelfish, Swords, Rosy Barbs, and Emperor Tetras. These are overlooked – they are unassuming at first but when they mature, they have beautiful colour.



Closeup view of 65 gallon planted.
Inset: Emperor Tetra



Q: Any special message for our members?

A: I look forward to seeing OVAS members at our store. I believe we cater to most tastes and needs – whether it is livestock, dry goods or equipment. And certainly, if you can't find what you want – ask. You can also take advantage of our custom order capability.

Q: Thanks for your time Jody.

A: My pleasure!



Here's one that caught my eye: a huge West African Tilapia (Buttikoferi). Jody tells me he's at least 5 years old; a pretty but aggressive carnivore!

Kali Biru 'Orange' Rainbows - A Breeding Program Adventure

By Jasmine Landriault

Initial stock

Purchased from OVAS guest speaker, Barry McKee, on October 24, 2011. The group consists of:

- 1 male (approx. 3 yrs)
- 1 male (approx. 1 ½ yrs)
- 1 female (3 yrs)
- 2 females (1 ½ yrs)

As seen in the picture above: the "gang" on their second day home.

Initial tank

- 25 gallon
- Powerhead mid level tank for a fast current area
- Marineland bio wheel HOB (150) filter
- Fine silica sand substrate, rocks
- Java fern, African water fern, rotala Vietnam, rotala wallichii

Parameters upon introduction

- Nitrite 0ppm
- Ammonia 0ppm
- Ph 7.0
- Kh Slightly acidic
- Gh slightly hard
- Temp 72 F



Feeding and maintenance

It took them about 4 or 5 days to settle in and start eating. I tried a variety of frozen, live and flaked foods; they seemed to finally settle on 'Omega One' Color Enhancer flakes, and frozen (thawed) bloodworms as their favorites for now. I intend to start up a little brine shrimp tank very soon for feeding them, especially if/when there's fry! Right now I am feeding them once a day, in the late afternoon and they seem to be content with that.

They get indirect sunlight during the day until about 4pm and then the lights are usually on until around 10pm.

I am doing weekly water changes of about 30%, using "Prime" water conditioner, and adding some "Seachem" plant products as well with every water change. There are also a few Malaysian Trumpet snails (MTS) in there as a clean-up crew.

First attempts to induce breeding

I switched them over to a 40 gallon with Eco Complete substrate, and gave more subdued lighting. They have really perked up in the past couple days. Much more swimming and flashing of intense colors.

I made my first attempt at spawning mops as well – you can see them in the picture. I've only made 4 so far. I'm thinking about adding a few more at different heights.

So far they don't look too interested in them however it has only been a couple days. I just can't help but sit there and stare at them, hoping for a glimpse of something magical!

Stay tuned to 'OVAS Currents' for updates, and more information on how to go about getting those marvelous breeding points! Thanks for reading!



After 10 days (Editor: "Group picture... SMILE!")



Spawning mop in place



Jasmine Landriault (Freshfishies)
Breeding Awards Program (BAP)/
Aquatic Horticulturalist Award Program
(AHAP) Chair
Email: bap@ovas.ca



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From Inspiration to Reality



Errol Choo's 79 Gallon Starfire Planted Tank

Some of you may have already seen the forum post "[New Starfire 79 gallon tank build](#)" by Charlie (Errol). And, based on the replies, many are envious! I met with Errol to discuss his project. I'm hoping this may provide some more insight about this exciting build, and about the man that's behind it all.

Q: So this is Fluval Plant Stratum – what is the advantage of this substrate?



A: It's a soil-based substrate. Unlike fluorite and Eco Complete which are inert. They are fired clay based, what they provide are trace minerals with a high percentage of iron. There is a common belief that

these substrates provide all the necessary nutrients, but they don't. With a soil based substrate, you don't have to supplement as much. In fact, you may not need to supplement anything for the first three months. It depends on the amount of uptake from the plants.

Q: From the original forum post, you had a DIY light. You just recently installed this 4-bulb TEK light?

A: Yes, I got it from Ray. There are two spectrums of Geismann bulbs in there. The "mid-days" which are about 6000K and the "aqua flora", the pinkish ones, that are

more geared towards plants. Two bulbs are timed to turn on 15-10 minutes before the second set of bulbs. They stay on for eight hours, from 1:00 to 9:00 PM.

Q: Tell me about your DIY light stand?

A: It's made out of EMT - electrical conduit. There are two lengths of conduit, with a 90 degree piece joined by a coupling. And I painted them the same colour as the back wall to make it less conspicuous.

Q: I've never seen these glass pieces before – lily pipes?



A: Yes. The main advantage of these are better flow (high volume/low velocity). The "scoop" design disperses the outflow, while also directing some towards the surface which helps reduce any surface film. And being made of glass they are more transparent and less distracting visually. One is for intake and the other for outflow. I got them in Toronto from Aqua Inspiration.



Q: What are these glass bulbs inside the tank?

A: Those are CO2 indicators or "drop checkers". It gives you an idea of the CO2 saturation in the water. The gas goes up the funnel, mixes with the solution in the

bulb and colours up. Optimally it should be light blue – about 30 PPM. If it turns yellow it is above 30 PPM. It's just a guideline, it's not "gospel" – there can be variances in the tank.

Q: Let's take a look under the cabinet – what do you have in here?

A: There is a CO2 reactor. I'm injecting CO2 at two points. One is a mist. Some can call it "overkill". I agree, it's not necessary. But I choose to do it this way to provide the CO2 via two methods. In one end, the CO2 goes through a reactor – the gas is dissolved with the outtake of the Eheim and pumped into the tank. Another line of the gas goes through an atomizer which then mists pure CO2 gas through micro-bubbles into the tank. Fine mist, like a fog, ends up landing on the leaves of the plant. Plants pull, or breathes, the gas through its leaves. It's apparently easier for the plant to assimilate the CO2 in this way.



Q: Is that pearling I see on the plants?



A: Yes. It usually starts about an hour or two after the lights come on. That's when you know you've got a good supply of CO2 and the plants are photosynthesizing properly. I time the CO2 to come on about an hour

before the lights come on and one hour after. You can have CO2 injection 24/7 but you don't need it at night. You're just wasting the gas. And you're stressing the fish out unnecessarily, because the plants are also releasing CO2 at night. There's a myth about CO2 killing the fish – technically it's the lack of oxygen.

Q: Does the open top help in providing oxygen?

A: Not really, you need some turbulence on the surface to help the gas exchange. I have an open top tank purely for aesthetics.

Q: So what does the controller regulate?

A: The water temperature, the CO2, and the lights. It does allow me to control the CO2 according to the pH level, but I simply use the timer function instead. This is an upgraded package with two banks of power bars. Although it is marketed to reef keepers, it has everything you need for freshwater planted tanks. It's very adaptable.



Q: I see you also have a UV sterilizer – why?

A: It takes care of most of water borne parasites. It's advantage is that polishes the water by killing certain algae. You can see the difference in the clarity. It's the most effective way to avoid "green water".

Q: Have you had a problem with algae?

A: Any planted tank can have algae. Once you have algae, it's a telltale sign that something is out of balance. The trick is finding what's out of balance. All of it is observation and experience.

Q: Out of balance, like too much light or too many nutrients?

A: Contrary to popular belief, algae can often be caused by a lack of nutrients. A typical example is the thinking that too much phosphate is the main cause of algae. This may be true for a fish-only tank, but not in a planted tank. The plants are using the phosphates. In fact, in limiting phosphates, you also limit the plant from absorbing other nutrients. So phosphate is an "accelerator" for nutrient absorption. And in limiting this absorption, the nutrients are then made available for algae to take in.

It's very easy for people to diagnose something based on the first symptom they see. And 9 out of 10 times, the cause of the problem is "way down the road". Typically, dirty filters and poor maintenance are the root cause to the balance issues.

Q: So the "hardscaping" is this collection of Redmoor wood pieces. This is not Manzanita?

A: It's commonly believed to be Manzanita, but it's not. It's a hardwood and its characteristics are similar to Manzanita.

Q: So tell me a bit more about the plants you have.

A: In the foreground, as a carpeting plant, there's some *Glossostigma*. There's also some "Crystal Wort" – *Riccia fluitans*. They don't root in the substrate, I have them attached to some rocks, otherwise they would float.

Q: What about this reddish plant towards the middle?

A: This is the plant that got me into the hobby – *Alternanthera reineckii*. Many years ago I walked into SuperPet and saw this red plant, which most people like when they first see it. Bought it, didn't know much about planted tanks, and stuck it in my aquarium. It died. Went back and got another one. It died as well. By chance, I went to a Reptile Expo at the Nepean Sportsplex. OVAS had a booth there with tanks, literature and people to talk to. That's how I found out about OVAS, and finding out more on how to properly care for aquatic plants. That's why I think it's important that the club makes itself better known to the public.

Q: It's obvious to me that each plant has its place and purpose in the aquascaping, but is there a plant in particular you enjoy working with?

A: Not really. What gets me passionate about the hobby is the challenge. If I hear a plant is difficult to grow, I'll want to try it. The biggest challenge I've had so far is probably the Toninas.

Q: In closing, is there anything else you would like to mention?

A: There is one message I'd like to convey to the readers. The internet and our forum is very convenient way to get and transmit information. But people assume that just because a person has 5,000 posts, that they automatically know what they are talking about. That has created a lot of misinformation and misunderstanding.

There's a quote from Tom Barr that relates to this: "Do, then talk about it. No do? No talk!!" In other words, don't talk or give advice about something until you've done it yourself. There's no sense in regurgitating some information you've read about on the internet, without having tried and experienced it yourself.

I encourage people to get involved in the club, go to meetings, and meet people. There's no substitute for talking with an experienced person face-to-face.

Q: Thanks for taking the time to chat with me, Errol, I look forward to your updates on the build.

A: Thank you – I enjoyed it as well.



Build Details

- Tank: 48x20x20 starfire ADA style tank
- Substrate: Fluval Plant Stratum (5x8 KG bags)
- Hardscape: Redmoor wood
- Lighting: 4 bulb 48 inch T5 HO Tek light
- Filtration: 2 X Eheim 2026 Pro II
- Intake & Return: glass lily pipe
- Heating: 300 watt Hydor ETH In-Line Heater
- Controller: Reefkeeper lite 3
- UV sterilization: Coralife twist 9 watt

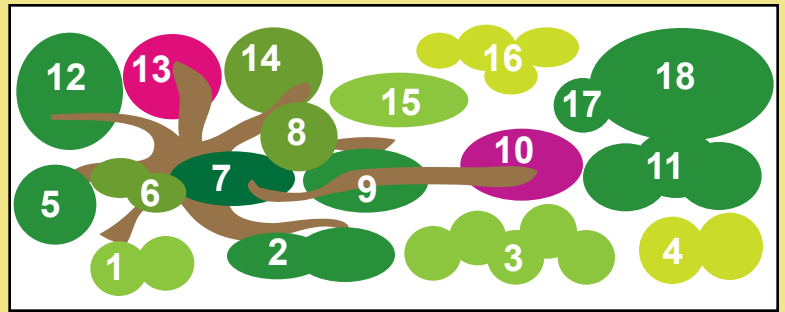
Nutrients

- Pressurised CO 2 injected via a Sumo twin needle valve Regulator @ 2 points in the tank, one via a DIY inline reactor driven by a Eheim compact 2000 + pump & the other a passive inline UP atomizer
- Macros & Micros will be salts from the Hydroponics via the Estimote Index

Livestock

Bushy Nose Plecos, Amano and Cherry shrimp, Kuhli Loach, Otto Cat, Sterbai Cories, SAE, Assassin snails, and Cardinal Tetras.

Plants

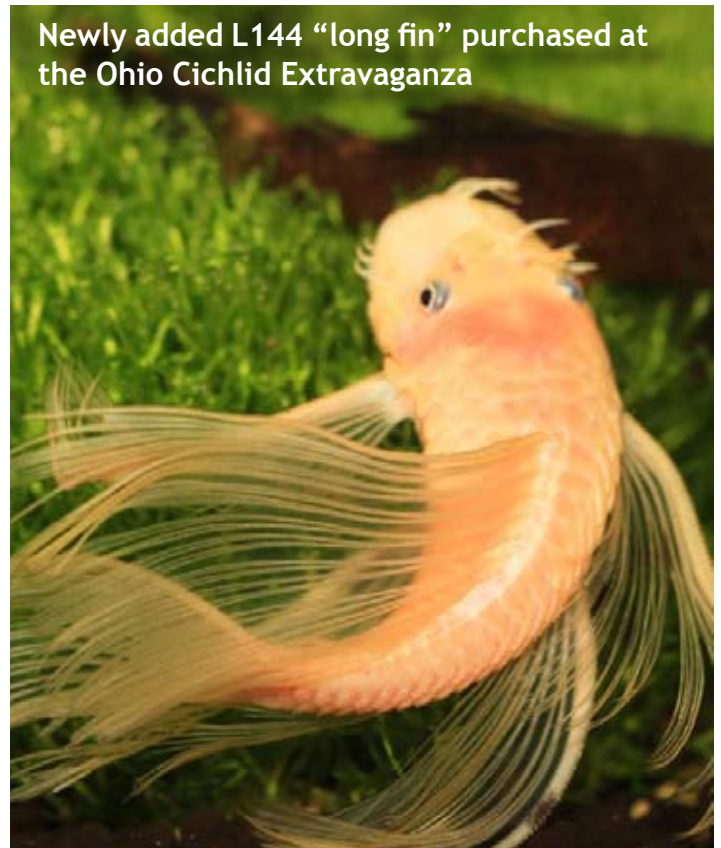


1. Tonina belem
2. Glossostigma elatinoides
3. Riccia fluitans (Crystal Wort)
4. Blyxa japonica
5. Lysimachia nummularia (Creeping Jenny)
6. Anubia Nana
7. Java Fern
8. Rotala Vietnam
9. Pogostemon helferi
10. Alternanthera reineckii
11. Eriocaulon Setaceum.
12. Rotala sp. "green"
13. Proserpinaca palustris "Cuba"
14. Ludwigia brevipes
15. Tonina sp. fluviatilis
16. Didiplis diandra (Blood Stargrass/Water Hedge)
17. Rotala pusilla
18. Ludwigia Arcuata.

Cherry Shrimp making themselves quite at home in Errol's tank



Newly added L144 "long fin" purchased at the Ohio Cichlid Extravaganza



Ray's

Marine Livestock & Aquatic Supplies

613-321-0535 Ottawa, ON

Website: <http://raysaquarium.com>

Errol purchased his Tek Light and Reef Keeper Lite Controller from Ray's

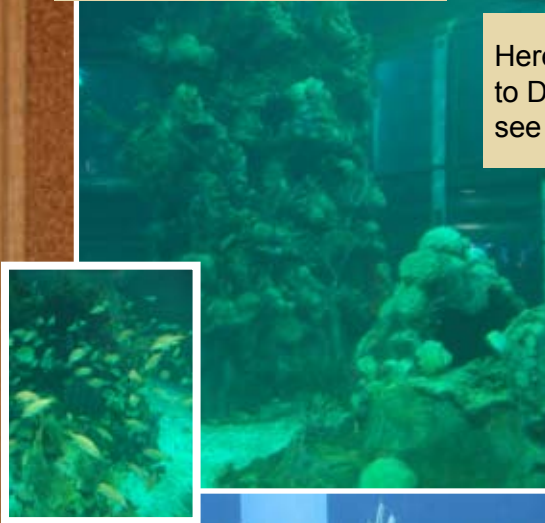
DISNEY FISH FINDS!

Huge (artificial) reef tank with several huge saltwater species: Jack fish, Angels, Squirrelfish, Unicornfish, etc. Breathtaking!

EPCOT



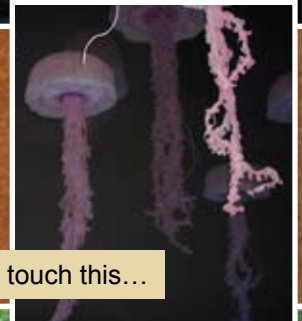
Here are some pictures chronicling my family trip to Disney in early November. There was lots to see from a aquatic perspective - "magic" indeed!



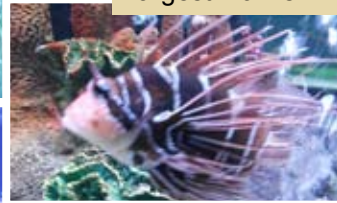
Research Centre - one tank had Clown fry!



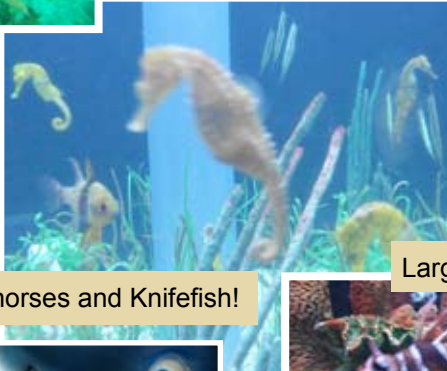
Can't touch this...



Largest Lionfish I ever saw!



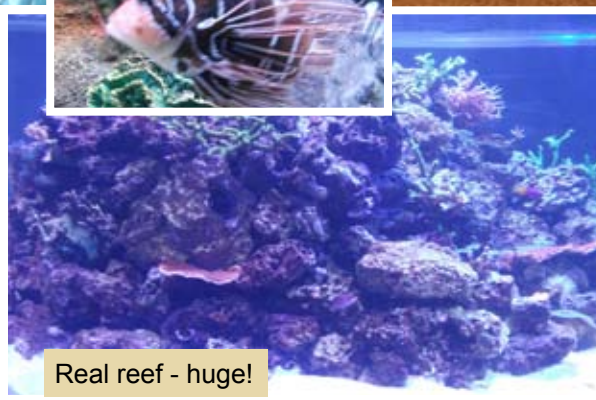
Seahorses and Knifefish!



An example of "green technologies": fish water feeding plants above.



Where else can you get into a shark's mouth?



Real reef - huge!



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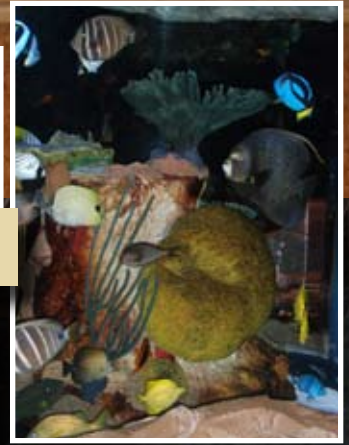
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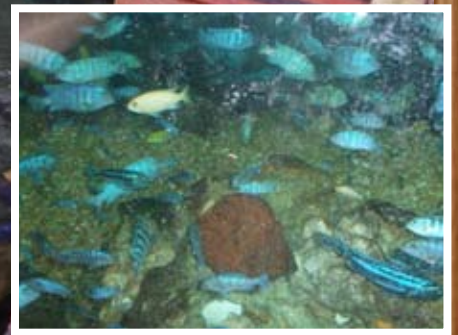
Adding in salt to freshwater.
Saltwater specialists | www.fishtail.ca



Rainforest Cafe - Must see!
There's one in Toronto too...

A CICHLID POND!!

For me, this was worth the price of admission. This pond contains thousands of Malawian cichlids. Absolutely stunning! The pond extends from a waterfall to a viewing area, under a bridge, to the Hippo pen. No idea on size - but biggest (and only) cichlid pond I've ever seen!



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since 1954

ACHIEVEMENTS

&

OPPORTUNITIES

BAP/AHAP POINTS (currently FAQs)

Listed on this side of the board are:

- Member name
- Species of fish or plants they have successfully bred/grown
- BAP/AHAP points awarded.

LOCAL FISH FOR SALE

Listed on this side of the board are:

- Member name
- Species of fish they are currently breeding
- When they will be available for sale.



Please see Jasmine Landault (Freshfishies), our Breeder Award and Aquatic Plant Award Chairperson, if you are interested in learning about or participating in the program.
"Happy Fishing!"



For more details on the board and BAP/AHAP contact Jasmine Landault (Freshfishies) bap@ovas.ca



Show us your colours!



Title/Description: _____



Child's name: _____ Age: _____

OVAS Member: _____ Relationship: _____

