

SWAM

May/June 2012

A publication of the Southwestern Michigan Aquarium Society (S.W.M.A.S.) WWW.SWMAS.ORG
Club meets each month in Kalamazoo

Growing Orange Flame Tetras

(*Hyphessobrycon flammeus*)



By Jacob Potts

I have never really tried raising tetras before. After bringing the baby tetras home from the meeting, I placed the bag of fry in an established one gallon tank with no other fish in it. The tank had a small heater and one small air-stone and the water in the tank was very soft. After the bag of fry was in the tank for about five

minutes, I slowly released the five fry into the tank and immediately noticed one fry that seemed deformed, but the other four seemed healthy. I made a note to myself to keep special watch on the one deformed fry.

After one day, I fed the tetras powdered flake food. After about a week, I noticed the deformed fish floating on top of the water and so I removed it from the tank. At one month, when the four tetras were starting to feed on the top of the water, I fed the tetras very small flake food. Then a few days later, I added a small amount of java moss and five small ramshorn snails to the tank, and did a 5% water change using a measuring cup and water from another established 20 gallon filtered tank that had no fish in it. I continued to do daily water changes like this for three months. After two and half months, I fed the tetras a small amount of unfrozen frozen bloodworms along with the flake food. I think they grew about one centimeter after one week of adding in the bloodworms to their diet.

After about two months, I noticed several black LT molly fry in my 55 gallon tank and added them to the one gallon flame tetra tank since I did not have another nursery tank set up at that time. There were about seven molly fry and I left them in the tank with the tetras. The mollies and tetras were compatible and seemed fine together. At this time, I put one small cherry shrimp in the tank to eat decomposing excess flake.

I enjoyed raising the tetras and watching them grow! 🐟

The Truth Behind Water Changes, As I See It

by Mike Monje

I have been very blessed as a man and as a hobbyist. I've had the good fortune to visit many places and spend time with hobbyists in many other parts of the world, and to visit fishes in their homes in many places around the globe. For that I am truly thankful and grateful. Through all of this I've learned one very valuable lesson. Nature in all her wisdom and glory does water changes! Not only that, she does them often, aggressively, and with purpose.

While snorkeling a reef in Barbados the tide literally pulled me along a trench that the currents had carved through the reef. This was an amazing experience, I was effortlessly pulled along by the currents, and I observed the corals and fish as I was pulled along the length of the trench. However, it was during the long swim back up this trench you

Continued on page 2

'Twas a great Spring!

Greetings from our President: John Oxner

The Spring Stampede of things centered around our hobby has now passed. And what a season it was. With so many Auctions, SWAP Meets, and other events having taken place over the past five months, there was almost not a single weekend when we didn't have some opportunity to go fishin'. Fortunately for us, we still have one last Spring day with a number of Fish related activities planned. May 19th everyone will have the opportunity to go on the bus trip to Chicago with Michiana's club. Or they can go with several members of the GVAC group on a mini bus or vans to Detroit. Both will be Shop Hopping from the time they arrive until late that evening. Others may wish to go to Romulus at the Best Western to look at the judging competition of the International Guppy Breeders Show.

I want to personally thank everyone who has worked so hard to make this year a success. For the first time in four years we're growing again. We started with 37 members at the close of last year and now count ourselves at 48 with more and more asking about our club and thinking about visiting. That wouldn't happen if it weren't for all of you and your willingness to share having fun with each other as a group. While there are simply too many people to thank individually for the efforts to make our spring auction the success that it was, it would be remiss of me not to single out Dave Hemmerlein and his beautiful wife Kristie for all that they did to get the hall locked into a contract. Advertising was sent out to over 150 people in writing. They secured the auctioneers needed, people to run the sign-in/check-out table, taking charge of making the day happen, and keeping all records accurate. They had a lot of great help from many as well. We doubled our projected income!

The Glowlight Tetra, an Ideal Fish

By Chase Klinesteker

The Glowlight Tetra, *Hemigrammus erythrozonus*, was the first tetra that I ever kept, back in the 1950s. An older scientific name for them was *Hemigrammus gracillis*, meaning small and graceful. It is an active, colorful, hardy, peaceful, not fussy about foods, easily bred, and adaptable to most environments. It was found in the Essequito River in Guyana, South America, and first introduced into the aquarium trade in 1933 around the time of the neon tetra introduction, and they both have remained perennial favorites over the years. This Tetra is colorful in a delicately subtle way and has a large eye that is bright red on the top half. It's color extends in a luminous golden-orange lateral line all the way to the base of the tail, and it's body is semi-translucent, giving this fish a soft and gentle appearance, which matches its disposition perfectly as one of the most peaceful of all tetras. They show their best color in aquariums where there is a school of them over a dark substrate and background and diffuse overhead lighting is



Continued on page 3

wouldn't believe how the corals and fish responded to this influx of fresh seawater. It was truly breath-taking. Their colors were brighter, the corals were open, polyps fully extended, and the activity of the fish was heightened. This phenomenon occurred twice daily, flushing the old water off the reef and replenishing it with fresh seawater.

While fishing for Apistogramma's in the Peruvian Amazon I was amazed that these little cichlids lived in as little as three inches of water, cluttered with leaf litter, and water so murky that you couldn't see the leaf litter at a depth of three inches! How could they possibly survive let alone reproduce under such conditions. With observation you could see the currents moving the water, constantly replacing old water with new. Only the pond looked stagnant! Upon closer inspection you could see the small streams, almost totally obscured by the grassy meadow, feeding into and out of this pond. These small feeder streams kept replacing the water, even during the dry season. During the rainy season when the Amazon reaches flood height, this pond totally connects to the main river and all the water is replaced with fresh water from the main river.

While watching streams, creeks and rivers, we all see the current, our immediate observation says that species in such an environment require water movement in our tanks. While in some species this is true, the wider view is that the water is constantly being replaced! New water from tributaries, run-off, or lakes is constantly being flushed through the system creating this current. The nutrients provided by this new water may be more of key to housing some of these animals than the actual current. While in the Amazon Rainforest this truly becomes clear even to the casual observer, most fish are found in areas of lower current, the water however is constantly being replaced. In the flooded forests you can observe the water level changing height from one day to next. This is truly amazing to observe and to try and comprehend the amount of water necessary for nature to accomplish this.

Bass fishing with my father, now and while I was growing up, I learned that his favorite spots on the lake are where the creeks are connected to the lake. Two of them flow into the lake, and two flow out of the lake. Dad has always maintained the best fishing was by the creeks. Of course he's right; the changing water provides micro-organisms for the bait fish and crustaceans, which of course attracts the predators. While we consider a lake to be a closed system most of them have springs, creeks, or a channel that connects them to another body of water.

Take the challenge

by John Oxner

As thrilled as I am that all of you have begun the long journey back to making this club into the nationally recognized power house it once was, there are a couple of areas that need attention. For the last five months we had folks volunteer to share their knowledge in our Species Presentation portion of the program. But new faces will end after May. We need more articles written by you, our breeders, and submitted for publication. It's in the articles that we really give away "trade secrets" about the how-tos with fish. I've learned a lot by listening to many of you talk. But how many more could be learning from you, many close to Master Status, if you were to take the time to pen a detailed article or two about what you do: when, where, why, and how. The hobby won't continue to grow and be passed on to future generations if we don't spend some time writing down what we've learned for them to read. Breeders get points for spawns AFTER they write an article detailing how they got that fifth to spawn. I'd like to challenge everyone in the club to write one article before this year ends about whatever it is that is the reason you keep aquariums—just one article each—I know you can do it! It's hard to stand up in front of a group of people and speak. But it's easy to write down our thoughts when we're alone with no pressure. So let's get writing.



While sitting on bench just watching the water plummeting over Niagara Falls, it was hard to comprehend all the water being pulled over the falls is coming directly out of the inter-connected Great Lakes and their tributaries. The largest freshwater basin in the world draining to the ocean over these falls, and being replaced with new water at a rate that keeps the levels relatively stable!

In Michigan and around the world there are small ponds that go completely dry at times. A whole host of aquatic species have adapted to these waters, laying their eggs in the mud allowing them to dry. When the rain comes the pond is refilled with freshwater, allowing the eggs to hatch and start the cycle all over again—all due to a massive water change.

A business associate in Bombay India had this beautiful fish only Marine tank. No lights. It was located on his Back Patio. No filtration (he replaced the seawater with fresh seawater every morning). The sand and rockwork were from the beach close to his house and he occasionally replaced those as well. The tank was sheltered from direct sunlight to keep the temperature somewhat stable. He maintained this tank without any fancy equipment, in fact without any equipment at all, it was all about the water changes!

So what happens without water changes? In the entire world I know of only body of water that nature doesn't perform massive water changes—Lake Tanganyika. This lake is almost totally isolated, while it does have freshwater draining into it, there is only one river flowing out of it, the Lukuga River. Evaporation accounts for approximately 95 percent of the water lost. So what happens without water changes?



Well Lake Tanganyika is more than 4700 feet deep, yet once past a depth of approximately 350 feet, it contains no oxygen, the surface temperature varies less than 6 degrees Fahrenheit to a depth of 3000 feet, and therefore it has no thermal turn-over as other lakes do. The Ph can be higher than 9.0! The suspended mineral content is so high that it precipitates and forms underwater flows that coat the rocks. So we have a lake, the second deepest in the world, that can only contain life in the upper levels where water is replaced due to evaporation and run-off. Aquatic life only survives in the portion of the lake that does perform water-changes.

So what's it all mean? A great fish-keeper once asked me about water changes, I replied that "I did some, but not regularly," he asked, "why not?" My response was, "my tanks were doing just fine without regular water changes." "Ok," he said, "but how much better would they do with them?" This started me down this path of observation, and the practice of regular water changes, and yes my tanks do A LOT better with them. Algae problems are reduced, in some cases eliminated, fish grow faster, they show better coloration, spawn more frequently, the plants do better, and tank/filter maintenance is actually reduced. Simply topping off our tanks leads to an organic build-up similar to that of Lake Tanganyika, while doing water-changes removes excess nutrients, adds trace elements, and more closely replicates what nature does, and that's what we're trying to do, replicate nature in a glass box. 🐟

Fry Raising Report

Chase Klinesteker

Congratulations to Jacob Potts for winning the Orange Flame Tetra Fry Raising contest. Now that he has written an article about how he raised the fish, he will receive the \$20 prize. The next contest (longfin Pepper Corys) is due to be judged at the June meeting.

used. If you watch fish for relaxation, a tank of these beauties cannot be beat! Albino and gold varieties of this fish are available, although I prefer the natural color form. Often these fish appear washed-out in the pet shops because a lighter gravel and background is used. They have a two to four year lifespan.

This Tetra reaches a maximum size of about 1 ½ inches and does best in community tanks with other small and peaceful fish. A group of six or more of them will make them more active and out in the open, as they are a fairly tightly schooling fish. They come from waters that are slightly soft and acid but are tolerant of a much wider range of water parameters. 70° to 80° is a good temperature range for them. They are omnivores and eat a wide variety of foods, including flake. Their mouths are fairly small and they prefer to catch particles of food on the fly because they inhabit the mid and lower levels of the aquarium. Sexing them is easier as they become full adults. Females will be larger by about a third and they will have a rounder belly area. Males may have slightly more intense coloration, although that can vary with environment. If you catch them in a soft nylon net, males will usually stick to it because they have a small hook on their anal fin, sometimes needing a vigorous shaking to get them unstuck!

Breeding is quite easy, as they can be seen spawning in a community tank. In this situation the eggs are quickly eaten and few fry survive. It is best to have a separate breeding tank of 5 to 10 gallons set up so the parents can be removed after spawning. I have bred a pair of them in as small a space as a 1 gallon jar, although in that case, the eggs must be removed, washed, and placed in another container to hatch, as the small volume of water gets very polluted. Soft water, either rain or RO around 78° or 80°, is used for breeding and hatching the eggs. Loose, soft plants like Myrophyllum, Najas grass, or plastic plants allow these fish to do their signature “barrel roll” breeding act, scattering about a dozen eggs among the plants at a time. An adult female can lay 200 or more slightly adhesive eggs in this manner. Remove the parents after spawning. They will eat the eggs. The eggs are light-sensitive and will have a poor hatch rate if exposed to much light, so it is best to put the breeding tank in low light. They may even breed at night, as does the Cardinal Tetra. Peat or methylene blue treated water cuts down on light and protect the eggs. The eggs hatch in one day and the fry hang on the plants and sides of the tank for four or five more days. When they begin swimming freely, I recommend feeding small amounts of a liquid fry food for egg layers or make your own suspension of finely ground flake food by shaking it in water and letting the larger particles settle out before feeding with an eye dropper. Feed this sparingly two or three times a day, only a few drops at a time, and use light aeration to keep the particles moving in front of the fry. Adding snails and some daphnia at this time helps reduce the pollution from the food. Partial water changes can be helpful, but be sure it is the same temperature and chemistry. In two to three days try feeding a few newly hatched baby brine shrimp and see if most fry will eat them. If not, continue the suspended food another day or two. If only a few of the tiny fry can take baby brine and that is all that is fed, those will get larger fast and begin cannibalizing their smaller brethren, resulting in far fewer fry surviving. Once they all are taking baby brine shrimp they begin growing fast and soon will be taking microworms and then fine flake food. In 2 months they may be ¾ to 1 inch in size and showing good color. 🐟

Thank You Sponsors

- All Old Aquatic
- Blue Fish
- Jungle KAKA
- Maryland Aquatic Nurseries
- Marineland
- Michiana Club
- Omega One Fish Foods
- Penn-Plax
- Pet Supply Plus
- Red Sea Fish Pharmaceuticals
- Rolf C. Hagen Corporation
- Seachem
- Tetra
- Zoo Med



BLUE FISH AQUARIUM
By Aquarist Services
RETAIL 616-667-BLUE
<http://www.bluefishaquarium.com>
158 Baldwin Street
Jenison, MI 49428
(616) 667-2583
M-F 12pm - 8pm
Sat 9am - 5pm
Sun CLOSED

Other Clubs to Check Out

- Grand Valley Aquarium Club
valleyaquariumclub.org
- Michiana Aquarium Society
www.michiana-aquarium-society.org
- Greater Detroit Aquarium Society
www.detoitaquariumsociety.org
- Motor City Aquarium Society
motorcityaquariumsociety.com
- Great Lakes Cichlid Society
www.greatlakescichlidsociety.net
- Yougstown Aquarist
www.yatfs.com
- Long Island Aquarium Society
www.liasonline.org
- Greater Cincinnati Aquarium Society
www.gcas.org
- Pacific Coast Cichlid Association
www.cichlidworld.com
- North Jersey Aquarium Society
www.njas.net

Contacts

EXECUTIVE BOARD

President: John Oxner
joxner@charter.net

Vice President: Ron McNeil
reptilianron@yahoo.com

Treasurer: David Hemmerlien
pupfishmich@aol.com

Recording Secretary: Cathy McNeil
cmcneil@swmich.edu

Corresponding Secretary: Kim Nelson
kim.nelson@wmich.edu

Sergeant-at-Arms: Vince Huston
captvince29@yahoo.com

Members-at-Large
William Shobway
firstprincess2k@hotmail.com

Pat Hartman
phat711@sbcglobal.net

Chase Klinesteker
ckspoonpl1@aol.com

COMMITTEE CHAIRPERSONS

2012 Spring Auction
David Hemmerlein
pupfishmich@aol.com

2012 Fall Auction OPEN

Monthly Auction
Matt Bielski
ski82566@aol.com

Bowl Show, Breeder's Award Program (BAP)
Curt Bitterling • cbitterl@yahoo.com

Fry Raising Program
Chase Klinesteker
ckspoonpl1@aol.com

Horticulture Award Program and Plant Raising (HAP)
DJ Hemmerlein
gamecube1Dj@aol.com

Hostess OPEN

Membership
Kristie Hemmerlein
flwswetp@aol.com

Raffle
Ron McNeil • reptilianron@yahoo.com

Webmaster
Phil Kukulski • kp wattson@gmail.com

Exchange Clubs

If you have a show or auction that you would like to see included here, please send the notice to the P.O. Box on the back cover of this bulletin, or to kim.nelson@wmich.edu. Remember that the SWAM is a bimonthly publication, so send those notices at least 3 months in advance!

We will exchange publications with clubs that want to receive SWAM. Send your publication to SWMAS, P.O. Box 3095, Kalamazoo, MI 49003-3095.

To Feed Live Baby Brine Shrimp, or to Feed Decapsulated?

John Oxner

For a couple decades I believed that hatching and feeding live baby brine was the very best favor I could do for my fry. After years of hatching them I find I've changed my opinion. It's only one person's opinion, but I'd like to share it with you.

The cost of a pound of shrimp eggs has sky rocketed to over \$50 for quality eggs— add Shipping costs and eggs are out of sight. Decapsulated can be bought for \$12.55 a pound plus shipping from Brine Shrimp Direct. This means you can buy at least 3 times as much food for the same price and not have to hatch a single egg.

Hatching live baby brine shrimp is time consuming and messy. You have to set up your hatchery. You have to add water, then salt to the correct amount for the size of your hatchery. You need to make sure your water pH is 8.0 or higher in order to have a good hatch rate. You need to make sure the temperature of your hatchery is 80° or warmer. Then you wait for 18-24

hours to begin trying to siphon off the hatched shrimp without siphoning off any unhatched eggs or hatched egg shells. Then you rinse them, put them back into clean water, and feed tank after tank. You only have to put the amount of decapsulated eggs you are going to feed into water, let them set for 5-10 minutes, and then feed. And you don't even have to reset your hatchery when you're done.

Baby Brine Shrimp begin to eat their own egg sac as soon as they are born. It is those vitamins, minerals, and proteins in that egg sac that your fry need the most. In as little as 12 hours from the time the shrimp hatches it empties it's own sac, leaving little value for your fry. Decapsulated never loses any of the good stuff as the shrimp never hatch, but the protein, vitamins, and such are still there to be eaten..

Live baby brine shrimp as a food can also be a dangerous food to feed very young fry. The shrimp themselves will not harm a single fry. It's the hatched

eggshells or the not hatched eggs that are the problem. These materials, when consumed by your fry, can get stuck in the fry's digestive system, blocking their tract and causing them a slow, painful death. Even straining your hatchery of Baby Brine Shrimp two or three times before feeding it does not make certain that all the shells or unhatched eggs have been removed. Decapsulated eggs have zero shells to worry about. Nothing will get caught in your fry's intestines. No fry will die.

My single biggest concern with baby brine shrimp is that they live in the same water as another microscopic animal called a Hydra. Anyone who hatches baby brine shrimp knows what Hydra are. They're those hair like little things that stick to the glass, the plants, everywhere in the tank just "floating" in the water column. But, did you know, they are animals that need to eat. And, to eat, they sting whatever comes near them with their electric prod like tails. These stings are harmful to fry. Enough

stings can kill a fry. And getting rid of the Hydra is close to impossible once they're in your tank.

In closing, there are simply as many or more benefits to feeding decapsulated brine shrimp eggs to your fry as there are to feeding hatched baby brine. And there's less chance of harm to your fry when you feed decapsulated eggs. In the past decade there have been so many advances in the formulations of foods, and the introduction of new foods, that going through the mess of hatching eggs is no longer the only way to give your fry the very best foods available. Golden Pearls, Cylopese, and Decap are only a few of the newest fry foods to hit the market that fill the bill for all your fry's needs. The next time you sit down to order another can of hatchable eggs, give these opinions a little more thought before you place that order. Two to four times as much food, as good for your fry as hatched baby brine, with little work or possible harm. 🐟



Your locally owned pet store

7429 S. Westnedge Ave.
Portage, MI 49002

(269)-492-PETS (7387)

mvpets@mvpets.net

PET SUPPLIES "PLUS"
DISCOUNT PET SUPPLIES



5320 S. WESTNEDGE
PORTAGE, MI 49008
PHONE: (269) 341-9252
FAX: (269) 341-9796

5% DISCOUNT TO SWMAS MEMBERS

Great Lakes Pondscapes

Featuring

<http://greatlakespondscapes.com>
glpondscapes@yahoo.com

Great Lakes Pondscapes
29891 Red Arrow Highway
Paw Paw MI 49079

Wanted to Buy or Sale

The Aquatic Peddler accepts ads from SWMAS members of up to five lines free of charge. Ads can be for items you wish to trade, sell or would like to find, but must be related to the aquatic hobby. Business ads are not permitted.



Type "south" in to search and we should pop up: Southwestern Michigan Aquarium Society.

International Fancy Guppy Association Sanctioned Show

The Michigan Guppy Breeders Club is hosting this show at the Best Western Gateway International Hotel, 9191 Wickham Road, Romulus, Michigan 48174-1904 (near the Detroit Metro airport). 734-728-2800

Saturday, May 19th

Registration opens: 9 a.m.
IFGA Judging Seminar: 9:30 a.m.
Registration closes: 2 p.m.
Judging begins: 2:30 p.m.

*Hospitality room to follow judging!**

Sunday, May 20th

Show room open to the public:
9 to 10:30 a.m.
Auction: 10:30 a.m.
Debenching begins: 10:30 a.m.
Exhibit tear down: 1 p.m.

For detailed information go to <http://www.ifga.org> —Click show section/show rules.

If you have questions contact: Ron Kelley, ronsguppies@msn.com or Tim Mousseau, qualityguppies@hotmail.com

**The hospitality room will be a catered sit down hot dinner buffet. A \$5 donation to MGB is suggested per person to help offset the cost. Donations can be made at the registration table.*

The Southwestern Michigan Aquarium Society

Fall Workshops and Tropical Fish Auction

Saturday, October 13

Workshops

Sunday, October 14

Auction

Ken Krum Center • East Clay Street • Schoolcraft, Mi 49087

WORKSHOP SCHEDULE

9 - 10

Chase Klinesteker: Tetra's care and breeding

10:15 - 11:15

Ted Judy: Pelvicachromis care and breeding

11:30 - 12:30

Mark Denaro: Collecting in Peru

12:30 - 1:15

BREAK

1:15 - 2:15

Pat Hartman: Livebearers care and breeding

2:30 - 3:30

Mark Denaro: Wild Betta's Care and breeding

3:45 - 4:45

Ben Van Dither: Aquascaping

5 - 6

Ted Judy: Brand new program

6 - 8

PIZZA PARTY AND SOCIAL TIME

FREE TO ALL PARTICIPANTS

Please note during the workshops there will be special raffles of aquarium related stuff, silent auctions, and rare fish raffles. Ben's 20 gallon tank that he decorates will be raffled off during the Sunday's auction.

Ted Judy sponsored by Repashy Foods and Oddball Fish. Mark Denaro sponsored Anubias Design

AUCTION

Registration 9 - 11 a.m.

1. You do not have to be a member to sell or buy.
2. All items must be labeled with seller's name, phone number, and ID and item number.
3. Item selling must be accurately described and legible otherwise the item will be considered a donation to SWMAS.
4. Pair means one male and one female, a mated pair means the male and female have **bred** together and have had viable fry. Trio means one male and two females.
5. Proper fish bags must be used; improper bagging will cause a rebagging charge of \$1.00 per item. Double bagging is highly recommended and zip lock bags will not be allowed.
6. Any item that doesn't sell for \$1.00 will be considered as a donation to SWMAS.
7. There is 50 item limit per seller and it is recommended that no more than 5 of any color strain or species be auctioned.
8. To accommodate out of town guests a call-up system is used the cost of the call-up is \$2.00 per item. The call-up fee does not apply to the auction price.
9. The auction committee reserves the right to reject any item not fit for sale, game fish are not allowed. Minimum bids are not allowed.
10. The auction is 70/30 split with 70% going to the seller, checks will be mailed with 14 days.
11. Preregistration can be done by contacting Dave Hemmerlein (269) 350-5674.
12. The auctioneer decision is final.
13. A tab is required to buy and **all tabs must be paid in full before leaving the auction** otherwise you will piss off the treasurer and the assistant treasurer. Cash or check with a driver license is accepted. A \$20.00 service charge is charged for any returned check and check fraud will be prosecuted.
14. SWMAS uses the ten table method with table 1 and 2 sold at the beginning of the auction. After table 1 and 2 are completed the remaining tables numbers will be drawn at random to determine the order they will be sold in.
15. SWMAS, Ken Krum Center, and its representatives will not be held responsible for any items entered into the auction nor for any personal injury incurred during the auction.
16. Ken Krum Center is smoke free and alcohol free facility.

David Hemmerlein

(269) 350-5674 pupfishmich@aol.com

Meetings are the first Friday of each month!

Every meeting begins at 8 p.m.; is located at **Best Western Gateway Hotel, 3640 E. Cork St. Kalamazoo, Michigan 49001.** Raffle and mini-auction are held (*70% of auction sales to seller*); question and answer session follows all programs; and a bowl show takes place (*see listing below*).

For the May meeting, please bring in a few small containers each, so that you can take home starter cultures from the workshop.

May 4, 2012
8 p.m.
Culturing and Feeding Live Foods
by Rich Eberly

June 1, 2012
8 p.m.
Demonstration of Building a Paludarium
by James Hitchcock

SWAM

Southwestern Michigan Aquarium Society (S.W.M.A.S.)

PO Box 3095

Kalamazoo MI 49003-3095

Calendar

MAY 2012

- 4 SWMAS Mtng./Culturing and Feeding Live Foods by Rich Eberly www.swmas.org
- 19 Michiana Aquarium Soc. Shop Hop: Bus Trip/Five Fish Shops Around Chicago Call 269-350-5674 for information michiana-aquarium-society.org
- 19 Around Chicago Call 269-350-5674 for information michiana-aquarium-society.org
- 19/20 IFGA Guppy Show MI Guppy Breeders <http://www.ifga.org>

JUNE 2012

- 1 SWMAS Mtng./Demonstration of building a paludarium by James Hitchcock, owner of Rain Forest Station www.swmas.org
- 23 Great Lakes Cichlid Soc. Summer Auction Euclid Square Mall Call 216-692-9296 for information www.greatlakescichlidsociety.net

JULY 2012

- 6 NO SWMAS Mtng. www.swmas.org
- 11 through 15 American Cichlid Assoc. Convention Wyndham Indianapolis West www.aca2012indy.com
- 21 MI Koi & Ponds Clubs Pond & Water Garden Tour 10 a.m. - 5 p.m./Livonia www.mkpc-se.com

AUGUST 2012

- 3 SWMAS Mtng./Collecting in Peru by Mike Monge www.swmas.org

SEPTEMBER 2012

- 7 SWMAS Mtng./Keeping and Breeding Live Bearers by Pat Hartman www.swmas.org
- 22 Great Lakes Cichlid Soc. Fall Auction Euclid Square Mall Call 216-692-9296 for information www.greatlakescichlidsociety.net
- 23/23 Michiana Aquarium Soc. Tropical Magic All Species Show/Auction Concord Mall, Elkhart, IN Call 269-350-5674 for information michiana-aquarium-society.org

OCTOBER 2012

- 7 SWMAS Mtng./Preparing for Auctions by Dave Hemmerlein www.swmas.org
- 12/13 SWMAS Fall Speakers/Auction Krum Cntr., Schoolcraft, MI www.swmas.org
- 20 Greater Detroit Aquarium Soc. Fall Auction www.grandvalleyaquariumclub.org
- 27 Grand Valley Aquarium Club Fall Auction www.grandvalleyaquariumclub.org

Bowl Show Schedule

- May Wild/Domestic Swordtails
- June Platys
- August Victorian Cichlids and Angels
- September Goodies, Mollies
- October Malawi and Tanganyika Cichlids
- November Danios, Rasboras
- December Your Favorite Fish

NOVEMBER 2012

- 2 SWMAS Mtng./Keeping and breeding Plecos by Dale Ernst www.swmas.org
- 3 MI Cichlid Association Fall Auction www.michigancichlid.com

DECEMBER 2012

- 7 SWMAS Mtng./a surprise topic by Charlie Grimes www.smas.org
- 8 Motor City Aquarium Soc. Fall Auction motorcityaquariumsociety.com

We need Articles!

Share your knowledge!
Deadline for submitting articles in the bimonthly SWAM is the 15th of February, April, June, August, October and December. Email articles to: kim.nelson@wmich.edu