Grand Valley Aquarium Club

GVAC Tank Notes

October — December 2011 Issue 54

Upcoming Meetings:

October:	David Ramsey Breeding fish
November:	Planted tanks
December:	Christmas Party Members only
January:	TBA

Inside this issue:

GVAC Fall Auction

Saturday October 29th, 2011

Registration starts @ 9am Auction starts @ 11am
Home School Building
5625 Burlingame S.W.
Wyoming, MI 49509
(Grand Rapids Area)

FISH, PLANTS, SUPPLIES

Raffle of donated items

To preregister contact Roger Miller miller.roger1@att.net

Everyone is welcome and you do not need to be a GVAC member or pre-register to buy or sell. Please see the full auction rules, seller forms and other informatino at our website www.grandvalleyaquariumclub.org

Twins! Not really. This photo from Tyler Mays is of a Neolamprologus leleupi and a Neolamprologus cylindricus.

2011 Board of Directors

President	Ken Zeedyk	616-772-4634	zekeshouse@wmol.com
Vice President	Ben VanDinther		aquariumservices@sbcglobal.net
Treasurer	Roger Miller		miller.roger1@att.net
Recording Secretary	Patrick Miller	616-336-5437	pmlife4@att.net
Corresponding Secretary	Dan Kraker		dankraker@att.net
Sergeant-at-Arms	Tim Boelema		tboelema@comcast.net
Members at Large	Jim Dutcher		jimdutcher@charter.net
	Pat Hartman		phat711@sbcglobal.net
	John Oxner		joxner@charter.net
	Scott Tetzlaf		thefishguy@triton.net

Committee Chairpersons

Membership	Jeff Vander Berg		
Public Relations	Ken Zeedyk		zekeshouse@wmol.com
Breeders Award Program	Ken Zeedyk		zekeshouse@wmol.com
Hort. Award Program	Patrick Miller	616-336-5437	pmlife4@att.net
Raffle	Dan Kraker		dankraker@att.net
Program Director	Ben VanDinther		aquariumservices@sbcglobal.net
Website Administrator	Jeff Vander Berg	616-819-8838	jvb@grandvalleyaquariumclub.org
Newsletter Editor	Patrick Miller	616-336-5437	pmlife4@att.net

GVAC Fellows

The following is a list of Fellows of Grand Valley Aquarium Club. These are members who have contributed their effort to making GVAC a successful club. They have held many positions within the club and donated countless hours doing those tasks that would not be completed except for their hard work. New Fellows are nominated by current fellows and voted on by the general membership.

Tim Boelema

Fin Nielsen

Jeff Vander Berg

Ben VanDinther

Ken Zeedyk

Don't forget to thank them when you see them at meetings or other events.

GVAC Mailing address: Grand Valley Aquarium Club
PO BOX 325
Grandville, MI 49418-0325

GVAC Website: www.GrandValleyAquariumClub.org

Reprint Policy:

Articles appearing in the Newsletter of the Grand Valley Aquarium Club may be reprinted in a newsletter (not on website or e-mail) by any non-profit aquarium organization as long as the author and GVAC are given written credit. Two copies of the publication in which the article is printed must be sent to:

Patrick Miller
GVAC Editor
PO BOX 325
Grandville, MI 49418-0325

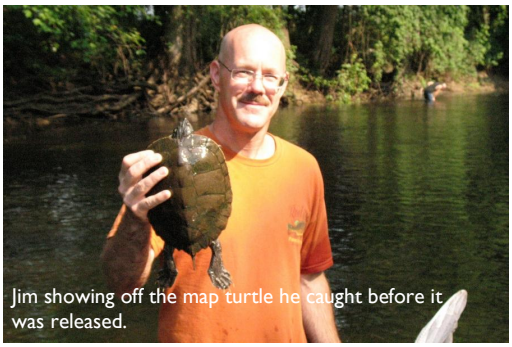
Greetings from Zeeland
Presidential Ramblings Continued

Its auction time again! Gather up your styros and head on out for some great deals on new fish. Besides our own auction on October 29 there are many others going on within a few hours of Grand Rapids. I have found it well worth the drive and have picked up some really nice fish. Be sure to check the events calendar in the newsletter and online. There are also links to other area clubs on our website that you can visit.


Ken & Ross working a seine while collecting.

In case you didn't make it to the annual GVAC Fall Yard Sale this year, you missed out on some great deals on used equipment. We had a great turn out of sellers and buyers, and wonderful weather as well. There was a wide range of equipment available and plenty of aquariums. Bud even brought his tank trailer, which I imagine was quite a sight to see going down the freeway. Thanks to Blue Fish Aquarium for hosting the event free of charge and providing pizza and pop to the sellers.

Another fun yearly event was our collecting trip on Labor Day weekend. A group of us met at the Thornapple River north of Hastings and spent a couple hours catching a wide assortment of fish including rainbow, blackside, and Jonny darters, northern hogsuckers, stonerollers, chubs and even a large female Map turtle. After the river visit, we traveled into the Yankee Springs area and visited Deep Lake where we saw many Fundulus notatus killifish. We also went to Hall Lake, which is located close by and looked for freshwater jellyfish. Unfortunately, we came up empty on the jellies, but did find more notatus killifish and a few Iowa darters and mudminnows. Patrick Miller went back to Hall Lake the day before the Yard Sale and did manage to find some jellyfish. He put them on display at the yard sale and many people were able to see these interesting animals. Most people don't even know they are out there and were quite amazed to learn they existed in Michigan.


Jim showing off the map turtle he caught before it was released.

Lastly, I want to take this opportunity to extend a word of thanks to Ben VanDinther for all the work he has done in getting us some great speakers this year. Ben has given us some really top notch presenters, and I appreciate all his work pulling them in to Grand Rapids. Give him a word of thanks next time you see him.

Happy Fishkeeping and good luck at the auctions,

Ken Zeedyk

Please support those who support GVAC

Blue fish Aquarium
Preuss Pets
Rogalla's Water Plants
ADG/Aqua Design Amano USA
Aquarium Fish Magazine
Aquatic Gardeners Ass. - Karen Randall
Aquarium Systems
Boyd Enterprises
Cichlid Press
Doctors Foster & Smith
Florida Aquatic Nurseries
Hagen
HBH Pet Products
Hikari USA
Instant Ocean
Kordon—Novalek
Marc Weiss Companies, Inc
Marine Enterprises International
Marineland
Ocean Star International
Pet Supplies Plus
Python Products, Inc.
Reef and Reed
San Francisco Bay Brand
Seachem Laboratories, Inc.
SpectraPure
Tetra
Wardley—A Hartz Company
Zoo Med Laboratories Inc.

Calendar of Events

October 2 — Green Water Aquarium Society Fall Auction
12521 South Kostner Ave Alsip IL
Registration 10:30-11:30 Auction starts @ noon
www.gwasoc.org

October 8 — GVAC Meeting
Topic: Breeding Fish
David Ramsey

October 15 — SWMAS Fall Auction
Krum Center in Schoolcraft
629 East Clay St. Schoolcraft, Michigan 49087
Registration @ 9:30—Auction @ 11am
www.swmas.org

October 15 — GDAS Fall Auction
814 N. Campbell Rd Royal Oak MI 48067
Registration @ 9:30—Auction @ 11am
http://greaterdetroitaquariumsociety.org/

October 22 — Michigan Cichlid Association Fall Auction
33845 24 Mile RD Chesterfield TWP MI 48047
www.michigan.cichlid.freeservers.com

October 29 — GVAC Fall Auction
Home School Building
Registration 9am—Auction starts at 11am

November 12 — GVAC Meeting
Topic: Planted Tanks

November 18-20 OCA Extravaganza
Holiday Inn, Strongsville OH
www.ohiocichlid.com/Extravaganza.html

December 10 — GVAC Christmas Party
Members only

December 10 — MCAS Fall Auction
876 Horace Brown DR. Madison Heights MI
Registration @ 9am—Auction @ 10:30am
www.motorcityaquariumsociety.com

January 14 — GVAC Meeting
Topic: TBA

January 21 — GVAC Swap Meet
Home School building
Contact Patrick Miller for information

February 25-26 — MAS Killifish carnival
www.michianaaquariumsociety.org

March 24 — GVAC Spring Auction
Home School Building
Registration 9am—Auction starts at 11am

8-11-2011 Board Meeting

In attendance:

Ken Zeedyk, Patrick Miller, Roger Miller, Ben VanDinther, Jim Dutcher, Dan Kraker, Tim Boelema

1. 9-10 Yard Sale
Ben or Ken are the contact if people want to sell. There is no cost but it would be nice to have a count of how many people will be there.
Ben will get pizza or something for the sellers.
Ken will have membership forms.

2. 2011 Budget review
Roger provided reports from March through July.
Roger also provided a list of auctions since 1999 showing location, # of sellers, # of buyers, average sell price and profit for the club.

3. Newsletter update
September meeting weekend is the deadline for new articles for the next newsletter which will be announced at the September meeting by Patrick.
New format for mailing seemed to work well.
Mailing list has been updated.

4. Upcoming Program Schedule
August - Game show
Patrick will pick up the computer from Bluefish
Ben to have answers proofed before Friday.
Prizes will be provided for correct answers and for incorrect answers
September—Kirby Adams will do a presentation on anabantoids
October—David J Ramsey will do a presentation on Breeding fish
November—Planted tanks. Ben is still working on getting a speaker such as Rhonda Wilson or Karen Randle
December—Christmas Party. Tom Siegfried's house in Rockford

5. Dates for the Rest of 2011
Yard Sale 9-10
Fall Auction 10-29
Tim Boelema will chair.
He will be getting auctioneers and confirming the food lady.
Usual times for auction. Set up is the morning of the event
Dan has several large raffle prizes already

6. New GVAC website
Ken, Patrick & Jeff are now set up as administrators and can now update the website.

7. Other topics
Coldwater River collecting trip
September 3, more information will be coming.
Car pool options for other club auctions or events like the shop hop Patrick will look into.

Continued on top of page 5

Ben mentioned that several club members had talked to him about transferring BAP and HAP points that they have with other clubs that they currently belong to. Ken mentioned that he also had members talk to him about doing this. After discussion it was decided that it was important for GVAC to have these members active in our programs.

Ben VanDinther then made a motion to publicly offer GVAC members who are also members of other clubs the opportunity to transfer BAP and HAP points from other clubs that they may be members of. This was seconded by Tim Boelema and passed unanimously.

BAP/HAP
Ben Mentioned that he would like to see more HAP and BAP award programs such as the BAP diversification award. He volunteered to come up with some specialty awards by the next board meeting.
Patrick said that he would come up with some BAP programs.
The meeting was adjourned.

Ancistrus by Accident

By Dan Kraker photo by the author

I've always liked the Ancistrus species (bristle nosed plecos) and keep a handful in most of my tanks. I buy them as fry at the GVAC club meeting mini auctions or at the spring and fall GVAC auctions. I usually grow them out, sell them at an auction and start over with some more fry.

I had a few in a 29 gallon tank with a colony of multies but the multies actually killed them off. That tank became quite algae covered as a result. When I sold off the colony of multies, I dropped a pair of Ancistrus in there and in no time, they had the tank spotless. I didn't want them to go from gorging to starving so I threw a few blanched beans from the garden or some algae wafers in there now and then which they happily munched on.

One day, I hung a breeding net in the tank. I was planning to strip a holding Cyprichromis leptisoma, in a few days, when the fry she was holding were old enough. Imagine my surprise the next day when I found my pair of Ancistrus spawning between the net and the glass. This was something I had not planned or expected but it sure was interesting to watch. The male remained between the net and glass fanning the eggs. The female took off roaming throughout the tank showing no more interest.

The eggs were actually laid on the net and after a few days 8-10 of them had slipped out and were lying on the bottom of the tank. I just left them there because there was pretty good circulation in the tank and I hoped they would develop too. I also tossed about 30 Placidochromis electra and Pseudotropheus saulosi fry in the tank to grow out, not knowing if the Ancistrus eggs would survive where they were laid.

A few days later when the eggs were 4 days old the ones on the tank bottom mysteriously disappeared and I assumed the female had eaten them because the Malawi fry were certainly too small to bother them. Then just by chance, I was sitting by the tank at about 10pm ready to turn off the light when I saw the eggs in the "nest" hatch out one right after the other. I searched all through the tank hoping the ones on the bottom had hatched and scooted off but found nothing so I went with my original suspicion of the female munching on them and figured I had better grab up these new fry and save them.

Male Ancistrus with eggs in the breeding net.

At 4 days the eggs hatched, the fry looked like egg sacs with tiny tails and heads protruding. They could scoot around and hold fast to the glass though and it was a challenge to get them out of there. I resorted to blowing current past them with one hand and netting them with the other as they were dislodged from the glass. Since the breeding net was already hanging there, I had a good spot to keep them and daddy clung to the net for days keeping an eye on them.

About 4-5 days after hatching, they had absorbed most of the sac and I took the net right out of the 29 gallon tank and emptied the fry into my 10 gallon fry tank where they seemed very happy.

In a period of 8-9 days, I was able to observe newly laid eggs hatch out and develop into miniature copies of mom and pop, able to survive on their own. Now I have a cave in there so if they spawn in the cave I'll know just what is happening at any given time in their development, even if I can't see them.

An interesting side note…..while this Ancistrus story was unfolding, I set up another 10 gallon and put my holding Cyprichromis leptisoma in there and figured I'd just let her release in her own good time. However, after 24 days of holding she still hadn't released the fry so I went ahead and stripped her. The fry were so large they could hardly get out of her mouth one at a time! They came out as large as or larger than my Mbuna fry are a month after release. I guess that's why she looked ready to explode and only had 6 fry in there.

2011 GVAC Yard Sale

Limia zonata The Striped Limia

By Mike Monje

Limia zonata is not necessarily the most colorful fish you'll ever see. Males tend to color up a little and have nice Black Bars down their flanks, while females tend to stay a coppery gold and very much resemble a female Guppy. That being said the ***thing*** about these fish is actually seeing them. To the best of my knowledge and research efforts, this fish was imported only once recently. In fact, it's actually the first time that I've seen them in the U.S. hobby at all. These fish were brought back in Feb. 2010 by Rit Forcier and made available in the SMP Auction at the ALA Convention in 2011. This is where I acquired my two pair.

These fish were collected in the Rio Caracor, which is thought to be a tributary of the San Juan River, near the village of Linea Nueva located in Eastern Dominican Republic. Some of the imported fish were sent to Dr. Alex Cruz at the University of Colorado for a positive identification. As it happens the *Limia zonata* has a Northern Morph and a Southern Morph, these were the Southern Morph.

Armed with this background information and my weird lust for the rare and unusual, I went a little nutso at the auction; I simply had to try these fish. I've worked with many species of Limia and they rank very high on my list of preferred Wild-Livebearers, so I was confident I could work with these fish. However, I will admit that I was nervous enough to split the two pairs between two different tanks, just in case. One pair went into a 20 long with some newly acquired *X. mayae* juveniles, the other pair went into a 15 long heavily planted tank by themselves.

After a little less than a month, I could see the female from the 15 gallon tank starting to swell, no gravid spot though. I waited and watched this pair for another two weeks, the male was relentless, he did not care that she was already in the family way. So, I moved her to a 5 gallon tank I had running with a generous bunch of Najas Grass floating around in it. Here's where I stalled, the other pair were doing nothing, the female in the drop tank just kept getting fatter, no fry were dropping and days went by. With the size of her belly and no gravid spot, I was beginning to fear bloat or some other sickness was befalling her.

The evening of May 27 a large storm system was blowing in just in time for the Holiday weekend, about 8:00 pm I was tired of the satellite interruptions on the TV so I went to the fish room. I checked my brooding tank and didn't see her and I panicked, I began really looking. She was way up in the corner dropping fry like an assembly line. I quickly counted the fry already dropped, (fifteen) and began adding the fry that were dropping, (she quit dropping at 58), two were belly sliders. When I was sure she was done, I moved her to a recovery tank, as I didn't want to take a chance on fry predation. After a week of recovery, I placed her back with the male and moved the other pair to the 15 planted tank. The belly sliders didn't make it past day 2, still 56 viable fry from a single drop! That is a record for me with ***any*** species of livebearer.

It has been a month since the fry drop and I've decided the next batch I will let drop in the parents tank. I'm really curious about fry predation with this species, as it's really variable within the Limia genus. I've done 5% water changes weekly on the 5 gallon tank, twice daily feedings of, decap brine shrimp eggs, Cyclop-eez and Spirulina Flake (crumbled), they are growing fast. Time to split the brood up to give them more room to grow. I kept 12 fish in the 5 gallon drop tank and moved a dozen to my grow-out for resale rack, placed a half dozen into a 2.5 gallon I had running and took the remaining fish to a fully cycled 20 long.

It has been two months since the first fry drop; my second pair dropped fry in the 15 gallon species only tank where I'm now housing all these fish. Within 3 days there wasn't a single fry left in the tank! This tank has bogwood, planted with Crypts, Java Moss and floating plants. I observed the males literally hunting fry. The females chased them and were successful, mostly but the males literally hunted the fry. There were times when the males simply killed the fry, they didn't eat them, they simply killed them and moved on. I have noticed this type of behavior in some cichlid species before, however I've never seen it in a livebearer species. So, I decided to try an old trick. *(With some species of Rainbows and Livebearers if the parents become used to fry in the tank, they will eventually begin to ignore them.)* So, I moved six of the juveniles that I was housing in the 2.5 gallon tank into the 15 long with the parents. They were chased one was killed. The parents eventually became used to them and left them alone. The next batch of fry that the parents dropped in the tank were chased and hunted but not to the degree that the first fry batch were. Five of the fry survived to the juvenile stage. My personal belief is that I can eventually reach a stage where the parents will basically leave the fry alone and I will be able to colony breed these fish.

So, here we are at 10 weeks, I have 55 fish from the original drop ready for my next club meeting. I must admit I will probably only part with one or two bags of six at the September meeting. Two fish were born belly sliders, (the last two to drop); I lost only one fish after that, one of my original males killed it when I attempted my experiment with the fry after a little more than two months in. All four of my original fish are now housed in the fifteen long with five juveniles from my original drop, five more juveniles from the second drop of the first female and the females have since dropped again. This time there seems to be only opportunistic preying upon the fry, not the search and destroy behavior that they displayed earlier. I believe that succeeding generations will be even more tolerant of fry than my original four have become.

Limia zonata have turned out to be a hardy, adaptable fish. I house mine with a 7.4Ph, temp in the mid 70's, (no heater in the tank) and a Sponge Filter. I feed flakes, (Brine Shrimp egg, earthworm, & Spirulina), with a treat of frozen bloodworms and live Brine Shrimp. The fry grow quickly if given ample room and water changes, if not the growth rate slows appreciably. They will accept crumbled flake immediately. When housed in a species only tank there is aggressive displaying between the males, I haven't observed any fin damage from this. The males are relentless on the females; this has dissipated some with the addition of juveniles in the tank. However, I personally believe that more females than males would be more preferable than my current setup. For anyone looking to try a fish that is very rare in the hobby and shouldn't be, I highly recommend Limia zonata.

FROM THE ARTIFICAL TO THE LIVING & CO2

By Roger Miller photos by the author

When I was getting back into fish keeping, after a hiatus of many years, I decorated the tank in the same fashion as the ones I had before. They had gravel for substrate, rock, artificial decor (trying to imitate underwater landscapes) and plastic plants. Occasionally it was necessary to remove the "plants" and decor to remove the algae and other nasty stuff that insisted on growing upon them. That was the way it always had been and would always be - wasn't it?

In time, the pictures and articles in the hobby magazines and books, about live plants and planted tanks caught my eye and interest. The tanks and plants were beautiful and comparing them to the non-living decor in my tanks was all the incentive I needed to give living plants and planted tanks a try (I had only two tanks, a 3-gallon and a 29-gallon at the time). Unfortunately, the selection of live plants at the stores I frequented at the time, mostly chain stores, was somewhat limited and uninspiring (to be generous). Fortunately, it was about this time I came across GVAC and attended my first tropical fish auction, something I'd never heard of and was very much surprised by the large variety of everything, including live plants, being offered for sale. Eventually, the plastic "plants" were replaced by living ones.

Some survived and did fair, others struggled to stay alive, while others morphed into a kind of green and brown goo. Though somewhat disappointing I was not discouraged as I was having some success, though very limited and it just intensified my desire to succeed.

The next step, which should have been one of the first things done, but wasn't, because, I sometimes subscribe to the school of thought that; "if all else fails try reading/following directions" was to do some research and reading. Books and magazines were relied upon for the bulk of the information. Interesting topics such as photosynthesis, photoperiods, nutrient requirements, lighting, to fertilize or not fertilize, to filter or not filter, plant specific substrates and the list goes on. Lots of information is out there to be found if one has the desire/need.

CO_2 Tank & main mainfold

All this knowledge came with a price, literally. The existing lighting on my tanks (by this time I was a member of GVAC and had more than the original two tanks - no more explanation necessary) was insufficient. They were upgraded from lighted hoods with a single T8/T12 florescent bulb to twin tube T5 HO florescent fixtures with glass canopies for tank covers. Eventually the glass canopies were removed and the tanks left uncovered. This was done for two reasons: First even though glass is transparent is does restrict light transmission into the tank to a small degree. Second and the most important reason, they needed to be cleaned more often than I wanted to be bothered with.

Gravel was gradually replaced, one tank at a time, with substrates specifically created for cultivating live plants (Seachem Flourite substrates are my planted tank substrates of choice). The addition of liquid plant supplements/fertilizers was begun, again choosing Seachem products - Flourish, Flourish Excel, & Flourish Iron. Eventually, plants began to show noticeable improvements in color, growth, overall appearance with some species reproducing vegetative (enough to garner a few H.A.P. points).

At this point, I had reached a crossroads of sorts. I could continue in the same direction or change course with the hopeful expectation that continued improvement in growth could be achieved. I chose the latter.

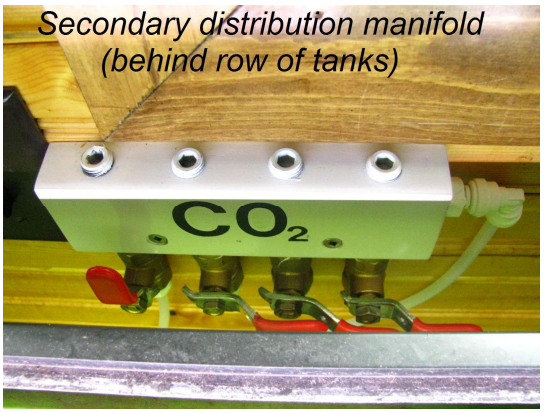
Information gained from the earlier research had pointed to CO2 as a probable limiting factor on plant growth in the aquatic environment.

From Diana Walstad's book, "The Ecology of the Planted Aquarium" quotes:

> *Freshwater aquatic plants face major problems in getting the carbon (both CO2 and bicarbonates) they need for photosynthesis. Carbon is often scarce in freshwater and levels fluctuate rapidly. During rapid photosynthesis, aquatic plants and algae often deplete lake waters of carbon by midday. Photosynthesis will often be highest in midmorning and gradually decrease throughout the rest of the day, even when light and other nutrients are plentiful"* (page 94) and *"Generally, aquarium plants will grow much better with added CO2. This is because CO2 is often the limiting nutrient in most aquariums, including my own, if only because so many other nutrients, such as nitrogen and phosphorus are so plentiful"* (from Q & A column, pg. 100).

Flourish Excel, a liquid carbon supplement, was the carbon supplement of choice at this time and the results had been good. This, however, seemed to be the one variable where a change could be made - the method in how the CO2 is delivered, from a liquid supplement to a gas.

A pressurized gas system rather than a yeast reactor system was determined to be the most suitable for my application, as it would



Secondary distribution manifold (behind row of tanks)

Continued on page 8

Continued from page 7

The CO2 system.

Components;

CO2 regulator
5lb aluminum CO2 cylinder (purchased to eliminate rental charges)
Distribution manifolds (2—custom made)
Assorted brass compression fittings for 1/4" OD tubing
1/4" OD polyethylene tubing
Brass ball valves (w/modified handles)
Pressure gauge 0 - 60 PSI
Solenoid valve 120 volt AC
Needle valves
Glass CO2 diffusers with built in bubble counters (I like the glass ones because they look cool when operating)
Silicone (blue) aquarium air tubing
Marineland 24 hour light timer
CO2 cylinder stand (custom built)
Miscellaneous pipefittings, screws and assorted hardware

Components were purchased a piece at a time, spreading the cost over several weeks. Most were purchased locally with a few being acquired online. Approximate total cost was just under $500.00.

Installation was spread out over several days (2 or 3 hours daily). Most of the supply tubing was installed under the floors, to keep things tidy, and to supply tanks in rooms separate from the CO2 supply. Tanks had to be drained & moved (to allow installation of some components and supply feeds), then moved back into position, and refilled - without removing the inhabitants, plants and most decor.

Initially two tanks were hooked up to the system with others being added over time. A total of five tanks (1-90 gallon & 4-29 gallon) at the time this was written have CO2 supplied to them.

Lighting is maintained for 12 hours per day (as it always has been) and CO2 is supplied for 8 hours daily.

The effects of CO2 supplementation began to show up within a few short weeks and have been dramatic.

Plants that I have maintained for, periods ranging from, 1 to 2+ years are showing significant increases (est. 25% in some species) in size and rapidity of new growth, regrowth and vegetative reproduction. Many are sending up flowering stalks with some flowering. Nuisance algae growth has been severely reduced and practically eliminated in at least one tank. There are some downsides, if you choose to call them that, in that it is now necessary to spend more time timing/pruning and controlling excess or undesirable plant growth and expansion. Some of the excess is/can be sold at meetings and auctions (to earn H.A.P. points and help pay for the hobby) while others must be disposed of.

Though not insignificant in cost (in both time/effort and money) once purchased and installed, maintenance costs are minimal. A 5 lb. cylinder of CO2 lasts me between 6 & 8 weeks (I'm still making adjustments to optimize usage) and costs $10.00 to have refilled. This is offset by the money saved by not using Flourish Excel in the tanks being supplemented with gaseous CO2.

Was it all worth it? The plants are doing great, except for 1 or 2,

there is an exception to every rule and they look great. They make my tanks look great and that was ultimately my goal. So, yes, it was worth it to me. If you have reached a crossroads with your plants and planted tanks, as I did, maybe you should give CO2 supplementation a try.

Now, if I hook up CO2 to my wallet, maybe I can get some of missing green to grow back!

SWAP MEET 2012
January 21

Home School Building
5625 Burlingame S.W.
Wyoming, MI 49509

10am—2pm

It is never to early to start thinking about the 2012 GVAC Swap Meet. The cost will be the same at $20 per table. You will be able to purchase as many tables as you would like or split the table between two sellers.

For more information or to reserve your table please contact Patrick Miller pmlife4@comcast.net

Lets make the 2012 GVAC Swap Meet the biggest one yet!

HAP January—September

Roger Miller
- Vegetative
  - Cryptocoryne wendtii "red"
  - Ceratopteris thalictroides
  - Egeria densa
  - Echinodorus sp. Frans Stoffels
  - Echinodorus sp. ozelot
  - Hydrocotyle leucocephala
  - Hygrophila difformis
  - Lemna minor
  - Nymphaea lotus zenkeri "red"
  - Myriophyllum simulans
- Flowering
  - Anubias barteri nana
  - Echinodorus sp. Frans Stoffels
  - Echinodorus sp. ozelot
  - Pistia stratiotes

Ben VanDinther
- Vegetative
  - Pogostemun rrectum
  - Cryptocoryne moelmani
  - Echinodorus sp. Vesuvius
  - Aponogeton Longiplumulosus
  - Echinorus sp. tenzande feverfeder
- Flowering
  - Aponogeton natans
  - Bacopa caroliniana
  - Ceratopteris thalictroides
  - Cypress Helferi
  - Cryptocoryne tonkinesis
- Sexual
  - Aponogeton Natans

Patrick Miller
- Vegetative
  - Anubias barteri
  - Hydrocotyle leucocephala
  - Hygrophila sp. low grow
  - Lemna trisulca
- Flowering
  - Menyanthus trifoliata

Tom Siegfried
- Vegetative
  - Ceratophyllum submersum
  - Cryptocoryne Balansae
  - Cryptocoryne lutea
  - Egeria densa

Scott Tetzlaff
- Vegetative
  - Lomaripsis lineata

Jeff VanderBerg
- Flowering
  - Cryptocoryne usteriana

Chase Klinesteker
- Flowering
  - Cryptocoryne usteriana

Cyndi Westra
- Vegetative
  - Anubias nana

Totals Vegetative 25, Flowering 12, Sexual 1

RED AFRICAN TIGER LOTUS

By Chase Klinesteker photo by the author

The Red African Tiger Lotus, Nymphaeaceae zenkeri, is one of my favorite plants primarily because of its varied forms and striking leaf colors. It is a true aquatic plant and can have both underwater leaves and floating lily pads as large as your hand or larger. The underwater leaves are heart-shaped, thin and delicate but very colorful with red, pink, yellow, purple and brown in a mottled pattern that is quite variable. Underwater leaves are more attractive and can be maintained by snipping off those going to the surface. Surface leaves are tougher and usually green or brownish but also can have mottled colors.

It comes from West African rivers, can withstand a PH range of 5-8 and likes warmer water temperatures of 72-86. It will thrive with medium to bright light. I get good growth and reproduction in a 70-gallon tank with a 2-bulb shop light over it. Try potting them in small plastic pans with ½ inch of potting soil in the bottom and gravel over it, as they are heavy feeders. Intense light and iron supplementation can spur even faster growth. Give them plenty of room as they can grow 2 feet or more in height and width. Place them in the foreground, background or as a centerpiece in any tank as an attractive addition. They reproduce by runners, bulbs forming on the roots and seeds. The flower is quite large, white with a yellow center and protrudes above the water. It is said to open up at night. Propagation is much better if they are allowed to develop surface leaves.

Because the leaves are delicate, shipping can be hard on the plants and some report that bulbs purchased may be damaged in shipping. Buying them at auction from hobbyists usually gives better results. If you obtain bulbs, don't bury them completely in the gravel or they may rot. Plantlets from runners are the easiest way to reproduce them when enough roots are formed to pot them.

The Red African Tiger Lotus is perhaps one of the most colorful aquarium plants available. They are easy to grow, reproduce and provide a complete contrast to the majority of aquarium plants. Just keep them away from big, plant digging cichlids!

Tiger lotus in the author's tank

BAP January—September

Monje, Mike—31
- Ancistrus Temmincki
- Betta smaragdina
- Caridina cantonensis sp. Tiger
- Corydora aeneus
- Fundulopanchax spoorenbergi
- Girardinus falcatus
- Girardinus metallicus
- Glossolepsis incius
- Julidochromis dickfeldi
- Limia melanogaster
- Limia perugiae
- Limia Tridens
- Limia vittata
- Limia zonata
- Neocardina heteropode - red cherry shrimp
- Neocaridinia cf. zhangjiajiensis
- Neocaridinia heterapoda v. Yellow
- Neoheterandria elegans
- Pelvicachromis pulcher
- Phallichthys fairweatheri
- Poecilia gilli
- Poecilia reticulate
- Procamborus marmorkrebs
- Psedocrenilabrus nicholsi
- Pseudotropheus saulosi
- Pundamilla sp Crimson Tide - Super Red
- Tanichthys albonubes
- Tateurndina ocellicauda
- Xenophallus umbratilus
- Xiphophorus evelynae
- Xiphophorus Pygmeaus

Carpenter, Chris—11
- Asolene spixi
- Cyprichromis leptosoma
- Limia melanogaster
- Limia perugiae
- Neocaridinia heterapoda
- Neolamprologus caudopunctatus
- Neolamprologus multifasciatus
- Pelvicachromis pulcher
- Planorbis corneus/rubrum
- Poecelia wingei
- Poecilia reticulata

Mays, Tyler—10
- Ancistrus calico
- Australoheros red ceibal
- Julidochromis maleri
- Labidochromis caeruleus
- Labidochromis gigas "Mara Rocks"
- Lethrinops red cap chirula
- Neolamprologus cylindricus
- Parachromis devii "Yellow"
- Pelvicachromis pulcher
- Pseudotropheus demasoni

Tetzlaff, Scott—10
- Astatotilapia calliptera
- Australoheros red ceibal
- Copadichromis borleyi
- Nandopsis salvini
- Neolamprologus brichardi
- Poecilia gilli
- Pseudotropheus msobo
- Synodontis petricola
- Tateurndina ocellicauda
- Tomocichla sieboldii

Miller, Patrick—8
- Astatotilapia latifasciata
- Chapalichthys encaustus
- Labeotropheus fuelleborni OB
- Limia sulphurophila
- Limia vittata
- Poecilia gillia
- Poeciliopsis prolifica
- Sturisomia aff. Festivum

Siegfried, Tom—8
- Asolone spixi
- Aulonocara kandeense
- Clea helena
- Ilyodon xantusi
- Neocaridina heteropoda
- Planorbis corneus/rubrum
- Xiphophorus maculates
- Xiphophorus nezahualcoyotl

Zeedyk, Ken—8
- Corydoras aeneus
- Corydoras paleatus
- Corydoras panda
- Eretmodus cyanostictus
- Iodotropheus sprengerae
- Neetroplus nematopus
- Pelmatochromis beutokofferi
- Tanichtys albonubez

VanderBerg, Jeff—7
- Carassius auratus
- Neolamprologus sexfasciatus Gold
- Oryzias woworae
- Poecilia gilli
- Poecilia vittata
- Pseudotropheus perspicax yellow breast
- Pseudotropheus polit

Miller, Roger—6
- Ameca splendens
- Hemichromis bimaculatus
- Heterandria formosa
- Labidochromis caeruleus
- Tanichthys albonubes
- Xenotoca elseni

Henkaline, Travis—6
- Ancistrus
- Corydoras habrosus
- Labidochromis caerulus
- Poecilia reticulata
- Poecilia wingei
- Pterophyllum scalare

Hosteter, Steve—4
- Limia perugiae
- Neocardinia denticulate “cherry shrimp”
- Pelvicachromis pulcher
- Tanichthys albonubes

Kraker, Dan—3
- Aulonocara stuartgranti
- Labidochromis chisumulae
- Neolamprologus multifasciatus

VanDinther, Ben—3
- Inlecypris auropurpurea
- Nematobrycon palmeri
- Procambarus sp marmorkrebs

Boelema, Tim—1
- Neocardina heteropode sp. Yellow

Westra, Cyndi—1
- Pelvicachromis pulcher

Valentine, Kenny—1
- Gambusia affinis

BAP by the #’s

Number of people participating	16
Number of fish spawned	118
Number of unique species spawned	88

Goodeid Crossword Puzzle

The goal of this crossword puzzle is to test your knowledge of Goodeid scientific names. I have dropped the genus from the name so that you are actually only looking for one word. To help I have included part or all of the common name in the clue. An example would be if I were looking for the non-goodeid fish Alfaro cultratus the clue may read “Its name might be Latin for sharp as a knife but you don’t have to worry about this fish cutting you.” with the answer being cultratus the “knife livebearer.”

I didn’t mean for this to be tuff it just worked out that way. Truth be told without help I could only get just over half of the names. Try doing it without the aid of a book or website. If you need help the Aqualog book “All Livebearers and Halfbeaks” is a good reference as is www.goodeiden.de.

Good Luck!

Down

1. Kmart may have it's blue light specials but this fish has it's own blue tail.

2. Unlike its namesake this bumblebee is all name and no sting.

3. This little fish is named after one of the Beatles.

4. Named after the region it is found in and not the drink.

5. Even though you may say this fish has polka dots its name is derived from Greek and means Panther.

6. This isn't the Jewel of the Nile but it is certainly a jewel of a Goodeid.

7. Although the common name is derived from the rainbow of colors on its body, its scientific name is derived from the Latin word for "side of the body."

Across

1. Its fins look like golden sails but its scientific name comes from Latin and is derived from the many golden "rays" that make up those fins.

2. This splendid little fish will dance like a butterfly.

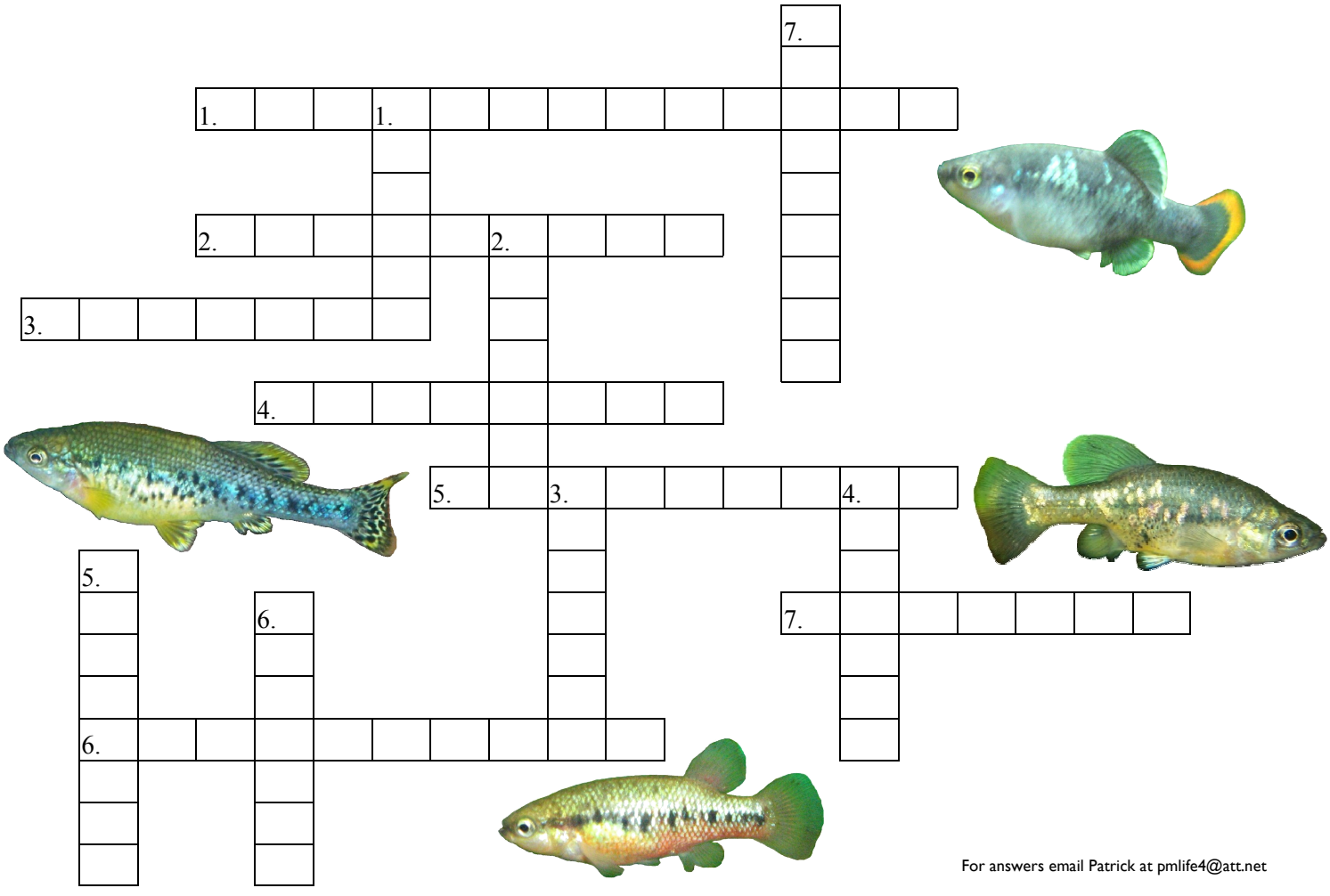
3. Its not often that you find a name that starts with an X but is pronounced as a Z, however, this fish's name is just that way.

4. This robust little fish is as ugly as a bulldog.

5. Unlike "Elf" from the TV show this little elfin Goodeid isn't a space alien.

6. The root of this fish's name is Latin for "blackend fin."

7. You can turn left or turn right but this little sailfin Goodeid will turn whatever way it would like.



For answers email Patrick at pmlife4@att.net

Grand Valley Aquarium Club
PO BOX 325
Grandville MI 49418

Address correction requested

Grand Valley Aquarium Club

Meetings are held on the second Saturday of each month at 7PM

Holliday Inn Express
Great room, just turn right at the big fish tank
6569 Clay Ave SW
Grand Rapids MI 49548

There is no fee and everyone is welcome to attend!

Ken Zeedyk had a unique display of Michigan rocks at the Holland Gem and Mineral Show which was held on September 17-18. To help spread the word about GVAC and to display rocks which can be found along the Lake Michigan shore he set up the tank pictured. He also set up another tank which featured petrified wood, three native killifish species, Johnny darters and Iowa darters.

The banner for the pictured tank read;

Michigan Rocks and Michigan Fish
The Best of Two Worlds

In this aquarium you will find rocks found on the shores of Lake Michigan. These include many interestingly patterned specimens, as well as a great Michigan favorite the Petoskey stone. None have been polished or altered in any way. The water brings out their naturally occurring patterns. Among the rocks are native Michigan fish which include four species of Darters, Spotfin Shiners, Northern Red-Bellied Shiners and a Northern Hogsucker.

These were very attractive displays and even included some native plants, Hornwort (Ceratophyllum demersum).