



# Tank Topics

The Official Publication of  
The Greater Akron Aquarium Society



February/March  
2009

In this issue:

- *Red Clawed Shrimp*
- *Java Fern*
- *Archocentrus myrnae*



# THE GREATER AKRON AQUARIUM SOCIETY

**WHO ARE WE?** We are a local group of aquatic enthusiasts. Formed in 1952, the Greater Akron Aquarium Society is a non-profit, non-commercial organization. Our membership ranges from the beginning hobbyist to the advanced aquarist with many years of experience. The goals of our club are to promote the care, study, breeding and exhibition of aquarium related aquatic life and to promote interest in the aquarium hobby.

**MEETINGS:** Our meetings are held on the first Thursday of each month at 8:00 p.m. at the Mogadore Community/Senior Center, 3857 Mogadore Road, Mogadore, Ohio. It is located East of Route 532 across from McDonald's in the former post office building (see map on inside back cover) Visitors are always welcome, it costs absolutely nothing to attend a meeting and look us over.

**MEMBERSHIP:** The cost is only \$750 for adults, \$10 for a couple or a family (includes children under 10 years of age) and \$5.00 for a junior membership (10 to 17 years) Membership provides an opportunity to socialize with other that share your interests, a subscription to our bi-monthly magazine, library usage and more.

**AGENDA:** Our meeting agenda is simple and informal. The meeting will begin at 8:00 p.m. with a short business meeting. Immediately following is the program for the evening which usually lasts about 45 minutes. Our programs consist of a speaker, slide program, movie or perhaps a panel discussion always on a particular subject related to the hobby or various species of fish. Following the program is a short refreshment break. After which the winners of the Bowl Show are announced, the Breeder's Award Program fish are auctioned and tickets are drawn for the equipment and book raffles.

**THE BOWL SHOW:** Each month members can bring in fish for specific classes to compete for first, second and third place awards. The charge for each entry is only \$.25. Members also compete for annual awards by accumulating wins throughout the year.

**BREEDER'S AWARD and HORTICULTURE AWARD PROGRAMS:** members can receive recognition for spawning species of fish or propagating aquatic plants. All that is required is to turn in a minimum of six fry from the spawn that are between 30 and 90 days old. Members earn certificates for each species and can work towards plaques in different categories.

**LIBRARY:** At the library table are a number of books and other publications covering all areas of the aquarium hobby. Members may borrow the books for a month at a time. Also each month several books are raffled off.

**EQUIPMENT RAFFLE:** The raffle table has such items as tanks, fish food and aquarium accessories that are donated by national manufacturers, area dealers or purchased by the Society. Tickets may be purchased by anyone attending the meeting. Save your losing tickets for the Christmas Party raffle.

**ANNUAL SHOW:** The Ultra-Aqua show is held the first weekend of August at the Tallmadge community Center. This has become one of the largest all-species tropical fish shows in North America. It is an international gathering of hobbyists to display their fish in class competition, talk fish and to learn about the hobby from each other.

**TANK TOPICS:** is published on a bi-monthly basis for the members of the Greater Akron Aquarium Society. Articles and comments for this publication are welcome and encouraged. Such articles are to be submitted no later than the board meeting prior to publication. All articles may be reprinted as long as the author(s) and GAAS are given proper credit and two copies of the publication containing the reprint are sent to GAAS. Please send any correspondence regarding this publication to:

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**This issue's cover:** A male red claw shrimp taken by Joe Reich. For more on this interesting invertebrate, read Joe's breeding report beginning on page 14.

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Check out our web site at: [www.gaas-fish.net](http://www.gaas-fish.net)

# President's Message

Bud White



Hello Folks,

Well it is official, we have 66 classes in our show this year and we need to get sponsors for them. This will be a tough year for doing that and on top of it all, we have one month less to get it done, since the show is July 11 & 12 instead of August. This is due to the American Cichlid Association Convention that is being held in Cincinnati on our usual dates. This will be the first time we have not had our show on the first weekend of August in at least 20 years, so make sure you let people know.

If you can help with the sponsors please let Rich or me know. We are also looking for someone to help keep track of the sponsor list. If you want to help with that, let me know. Ron is also going to list the classes on our website and mark them off as they are sold. That should help make it easier to find out if a class is available.

So far we have Ray (Kingfish) Lucas confirmed to be at the show. We are working on a couple of other vendors also.

We had a surprise visitor at the January meeting, he was from Ohio.com and he did a video of the meeting. It was posted on their site, the first day it was on the front page in the middle, it was great exposure for our club and the hobby also.

Don't forget our auction March 1, we need you there to help support your club, bring and buy items, help set up and run in the auction.

That's all folks, Bud

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# Editor's Message

Dave Williamson

I'M TIRED OF WINTER!!!! There, now that I've gotten that out of my system we can move on to other more important things!

First things first, I have a bit of an apology to make. Last issue I said I would have a photo section from the Fall Auction since I used up all the space with photos from the Toledo Zoo trip. You'll notice on page 25 that there are only a couple of pictures from the Christmas Party and none from the Auction. That is because somewhere in all my stuff on my desk I've managed to misplace the disk that had them on it! I've looked everywhere and now with the publication deadline staring me in the face, I have no choice but to give up and go on without them. Sorry. We'll try to do better with the upcoming Spring Auction.

Speaking of the Spring Auction it's coming up very soon on Sunday March 1st. The Spring Auction is usually our biggest event of the year so please try to attend to buy stuff, sell stuff or maybe help out in some way. We can always use extra runners, you've got to remember that some of us aren't as young as we used to be and don't have the stamina we used to! You'll also find a copy of the Auction flyer inserted in this issue. If you know of anywhere you could put one up that people who might be interested would see it, please feel free to make copies. If nothing else, put it on your refrigerator door so you have no excuse to forget about it! It will be a little different this year since the March meeting will actually come after the auction so we won't have that extra reminder.

One final subject that will affect us in some way this year is the economy. You might wonder what does that have to do with a fish club? Hobbies often have to take a back seat to paying the bills in tough times, although this hobby has the advantage over some others in respect to being able to put as much or as little into it as you want and still get some positive results. Often very successful aquarists have very low-tech set ups. The thing to keep in mind is to do what you want to, what you have time for and what you can afford, and above all else enjoy your hobby and your club. Always remember, this is supposed to be fun!

I'll see you at the meeting and the Spring Auction!

# Bowl Show & Special Activities

Ken McGill



We had a great turnout for the first bowl show of the year. Nineteen entries were registered in the three classes. But I counted 20 bowls! So somebody didn't register their fish. Remember, the jobs not done 'til you get the paperwork handled!

A big thanks goes out to Dave Williamson for taking over for me in the middle of things. I had a terrible cold and all I wanted was to be home in my warm bed! As I write this over a week later, I'm still not 100%. My first job back on the board after a couple years off and I just couldn't handle it. I'll do better next time!

## **The January Results:**

### Goldfish (4 entries)

1st Place -	Dave Williamson	Black Moor
2nd Place -	Bill Koleszar	Ryukin
3rd Place -	Dave Williamson	Calico Ryukin

### Male Guppies (7 entries)

1st Place -	Jeff Plazak
2nd Place -	Jeff Plazak
3rd Place -	Denny Bechtold

### Minnows Danios & Rasboras (8 entries)

1st Place -	Dave Williamson	<i>Danio sp.</i> TW-02
2nd Place -	Dave Williamson	<i>Danio affinis</i>
3rd Place -	Dave Williamson	<i>Danio kyathit</i>

I'll get a points total in the next issue of Tank Topics, but it looks like Dave is in the lead!

**How the Point System works:**

- 1st - 4 points
- 2nd - 2 points
- 3rd - 1 point
- 1 point per entry,
- maximum 10 points per class



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## 2009 Bowl Show Schedule

**January:**

Goldfish, Male Guppies,  
Minnows Danios & Rasboras

**February:**

Suckermouth Catfish,  
Swordtails, Characins

**March:**

Barbs, Mollies,  
Corydoras Aspidoras & Brochis

**April:**

Female Guppies, Platies,  
Aquatic Invertebrates

**May:**

Goodeids, Rift Lake Cichlids,  
Aquatic Plants

**June:**

Native Fish, Rainbowfish,  
Male Bettas

**July:**

Synodontis Catfish, Killifish,  
Angelfish & Discus

**August:**

AO New World Cichlids,  
Amphibians, Bog Plants

**September:**

Gouramis & Anabantoids,  
Sharks & Loaches,  
Photography

**October:**

Arts & Crafts, Marine Fish,  
All Other Old World Cichlids

**November:**

All Other Livebearers,  
All Other Egglayers,  
All Other Catfish

# BAP/HAP Report

Wayne Toven



## HAPPY NEW YEAR!!!!

We got off to a slow start BAP/HAP wise, the year started in December, and with all the festivities and the fish and plant give away, nothing was turned in. Between the winter weather and the gas prices, people should be staying home more and working in their fish rooms. This could be the case, because in January we had 6 members turn in a total of 9 spawns and 9 HAP submissions. That's more like it; let's see if we can keep that going.

As the spring auction season nears there will be plenty of opportunities to obtain young stock, breeder pairs or groups, move out some of your old stock and breeders, and of course get more of those much needed tanks. So get ready folks, our auction is on Sunday March 1<sup>st</sup>, it will be here before you know it. Thanks to our growth contest last year, there should be several people breeding gold barbs this year, I have at least two dozen adults myself.

### January

Species	Common name	Class	Points
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#### BAP

#### Denny Bechter

<i>Poecilia wingei</i>	Endler's Livebearer	Livebearer	5
<i>Poecilia reticulata</i>	Guppies	Livebearer	5

#### Phil & Tiffany Hypes

<i>Xiphophorus mayae</i>		Livebearer	5
<i>Julidochromis regani</i>	Zambian gold	Cichlid s.s.	15
<i>Neolamprologus brichardi</i>		Cichlid s.s.	15

#### Dan McMonigle

<i>Ancistrus teminckii</i>	Bristlenose pleco	Catfish	20
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**Bob Miller**

<i>Limia vittata</i>	Cuban Limia	Livebearer	5
<i>Poecilia reticulata</i>	Yellow snakeskin guppies	Livebearer	5

**Dave Williamson**

<i>Archocentrus nanoluteus</i>	Dwarf yellows	cichlid s.s.	5
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**HAP****Phil & Tiffany Hypes**

<i>Spirodela polyrhiza</i>	Greater duckweed	A – Vegetative	5
<i>Lemna minor</i>	Duckweed	A – vegetative	5
<i>Ceratophyllum demersum</i>	Hornwort	A – Vegetative	5
<i>Najas guadalupensis</i>	Najas grass	B – Vegetative	10
<i>Taxiphyllum barbieri</i>	Java moss	B – Vegetative	10
<i>Aponogeton madagascariensis</i>	-Madagascar lace	E – Flowering	20

**Ken McGill**

<i>Aponogeton madagascariensis</i>	-Madagascar lace	E – Flowering	20
<i>Echinodoras sp.</i>	Ozelot sword plant	E – Flowering	15
<i>Echinodoras sp.</i>	Ozelot sword plant	C – Vegetative	15

<b>2009 Spawn &amp; Point Totals</b>	<b>BAP</b>	<b>Points</b>	<b>HAP</b>	<b>Points</b>
Phil & Tiffany Hypes	3	35	6	55
Denny Bechter	2	10		
Bob Miller	2	10		
Dan McMonigle	1	20		
Dave Williamson	1	5		
Ken Mc Gill			3	50



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# **Meeting Notice**

**Thursday, February 5**

**Program:** Nate Larsen -  
Discus and Importing Fish

**Bowl Show:** Suckermouth Catfish,  
Swordtails, Characins



**Thursday, March 5**

**Program:** Jeremy Basch, CAFE  
Chairman - Geophagus Overview

**Bowl Show:** Barbs, Mollies,  
Corydoras Aspidoras & Brochis



All general meetings begin at 8:00 p.m. at  
the Mogadore Community/Senior Center

# Coming Events

## **Feb 7, 2009 – Ohio Cichlid Association - Winter Auction**

Holiday Inn Select Strongsville, 15471 Royalton Road.

Cichlids, scavengers, plants and dry goods only.

Registration 10-12 AM, Auction begins at 11.

Visit [www.ohiocichlid.com](http://www.ohiocichlid.com) for more info

## **February 22, 2009 – SCALES - Spring Auction**

Perry Grange, Richville Dr. SW, Massillon, Ohio

For more information: Cal (330) 448-0084, John (330) 452-9027

([tbaad@neo.rr.com](mailto:tbaad@neo.rr.com))

## **March 1, 2009 – Greater Akron Aquarium Society – Spring Auction**

Tallmadge Community Center, 80 Community Rd., Tallmadge, Ohio

For more information: Bud White (330) 848-3856 ([bwhite@neo.rr.com](mailto:bwhite@neo.rr.com)),

Wayne Toven (330) 296-6322 ([wtoven@hotmail.com](mailto:wtoven@hotmail.com)) or Rich Serva

(330) 650-4613 ([rjserva@juno.com](mailto:rjserva@juno.com))

## **March 15 – Youngstown Area Trop. Fish Society - Spring Auction**

Lordstown Admin. Bldg 1455 Salt Springs Rd. S.W. Lordstown, OH

Fish Plants, dry goods. Reg. 11 AM, Auction starts at noon.

For more information: Tom: [mruaru2@aol.com](mailto:mruaru2@aol.com) 330-758-3043 or

Curt 330-824-2563

## **March 21, 2009 - Columbus Area Fish Enthusiasts Swap Meet**

Hamilton Township Community Building, 6400 Lockbourne Rd, Lock-

bourne, Ohio For more information: <http://www.columbusfishclub.org/swapmeet.php> or

Pat Sabourin, 614-846-1038 (6-10 pm)

## **March 28 - Medina County Aquarium Society - Spring Auction**

Prince of Peace Church 3355 Medina Rd. (Rt.18), Medina, Ohio 44256

Contact Brian: 440-237-5092 [BrianShr@wideopenwest.com](mailto:BrianShr@wideopenwest.com);

or contact MCAS ([mcasfish@yahoo.com](mailto:mcasfish@yahoo.com)) or on the web at: <http://www.geocities.com/MCASfish/index.html>.

## **April 4, 2009 – Great Lakes Cichlid Society - Spring Auction**

Masters Church, 771 East 260th Street in Euclid. Registration starts at 9

AM, auction starts at 11. All species, plants and dry goods. Contact Dean

at [Merspaining@netzero.net](mailto:Merspaining@netzero.net), 330-656-0079, Marty at 330-650-0237,

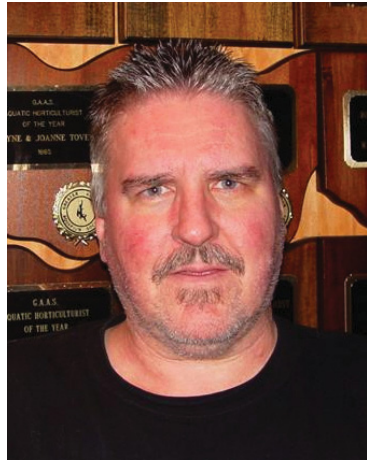
Bill at 216-692-9296 or Ron at 440-944-3245. web site: [http://](http://www.greatlakescichlidsociety.net)

[www.greatlakescichlidsociety.net](http://www.greatlakescichlidsociety.net)

# Exchange Report

Wayne Toven

Hello club members. If you are interested in reading any of the articles I review, let me know and I will get a copy of it to you, hard copy or e-mail.



**Michiana Aquarium Society**, Michiana Tropical Times:  
November 2008

*The Secret to Spawning Cyphotilapia frontosa*, by Bud Rambow

**Greater Pittsburgh Aquarium Society Inc.**, Finformation:  
November 2008

*Cryptoheros nanoluteus (yellow convict cichlid)*, by Stan Chechak

*Corydoras similis*, by Regina Spotti

*Nannacara taenia 'Guyana'*, by Wally Cox

**Pacific Coast Cichlid Association**, Cichlidae Communique:  
November/December 2008

*More than Just a Hobby*, by Richard Kong

*Lamprologus minutus*, by Rolf Mader

**Hamilton & District Aquarium Society**:  
December 2008

*Spawning Neon Tetras*, by Charles Drew

**Michiana Aquarium Society**, Michiana Tropical Times:  
December 2008

*Danio rerio: Separation Makes the Heart Grow Fonder*, by Richard Eberly

**Durham Region Aquarium Society**, Tank Talk:  
December 2008

*Cryptic Emersion – Part 6*, by Derek P.S. Tustin

*My Green Wet Thumb: Floating Gardens*, by Derek P.S. Tustin

*Eyeballs on Odballs: Ummmmm, Chocolate... (Gouramis)*, by  
Chase Klinesteker

**Kitchener – Waterloo Aquarium Society**, Fins & Tales:  
December 2008

*Breeding Rivulus cylindraceus*, by Al ridley

**St. Catharines & Area Aquarium Society**, the Scat:  
November 2008

*Assassin Snails / Anentome helena*, by Pam Danyluck

**Sarnia Aquarium Society**, Aqua Antics:  
December 2008

*Myriophyllum pinnatum – Foxtail*, by Peter Melady

*Shell Dwellers*, by Jack VanderAa

**St. Catharines & Area Aquarium Society**, the Scat: Jan 09  
*Ameca splendens or Butterfly Goodeid*, by Pam Danyluck

**Kitchener – Waterloo Aquarium Society**, Fins & Tales:  
January 2009

*The Planted Tank: Floating Plants*, by Ed Koerner

*Breeding “Temporalis Shell”* by Al Ridley

**Southwestern Michigan Aquarium Society**, Swam:  
January-February 2009

*Aulonocara Jacobfreibergi, Malawi Butterfly Cichlid*, by  
Chase Klinesteker

*Great Grazers*, by Chase Klinesteker

*A Day at the Shedd Aquarium*, by Heather Burke

*The Millenium Rainbow*, by Chase Klinesteker

*The Red Claw Macro*, by Chase Klinesteker



# *Keeping Macrobrachium Sp.*

## *"Red Claw" Shrimp*

By Joe Reich

I've always had a fascination for freshwater inverts. So when I had a chance to grab some Red Claws at an auction, the wallet opened up. These guys have to be the easiest shrimp to keep, which is a good thing because I was also on a learning curve. For starters I found out the hard way that 50% water changes are no more for the shrimp tanks! Shrimp are both easy and hard to keep. If you can get them acclimated to your tank conditions they absolutely thrive! Shrimp don't like a lot of fluctuation in their water chemistry. Translation, feed less than fish and make 1/3 water changes at most!

So now about Red Claws: They grow to a size of about 3 inches measured from the tip of the rostrum (the rostrum is the pointy nose) to the end of the tail. I don't know how long they live, but at the time of this writing (typing?), my oldest one is a female that's over 2-1/2 years old. They don't seem to be picky eaters and have a really good sense of smell. They'll swim up to the top of the tank to get floating food, but it's just best to feed sinking food. Frozen brine shrimp and bloodworms especially, are relished. They don't seem to be cannibalistic toward each other except for one specific time period, molting. After a shrimp molts the old shell, its new shell will be soft for a period. It seems to be during this time that I've observed cannibalism. Whenever my tank was thinned out in population I never seemed to lose any shrimp, but if the tank is crowded it seems that after a shrimp molts it get chased to no end until either it gets eaten or its shell hardens. That brings us to the question of the old molt, to remove or not? Personally, I leave the old molt in the tank as I've observed shrimp seem to like to nibble on it.

To help "spread out" my population I try to add a lot of things in the tank for the shrimp to climb over. Fish live in 3 dimensions, shrimp do not. However, if enough decorations are added to the tank that go from the tank floor to the surface, or at least close to

it, then we have provided more room for our shrimp to play in. My species' only tank for these guys is a 29 gal, which seems to be enough room for two males to get along together. Incidentally, if you don't know about *Machrobrachium*, they don't get along so good. This specie seems to get along with each other pretty nice.

Sexing isn't difficult either. A male Red Claw has big claws, kind of reminds me of a boxer with gloves on. As a male gets older the claws take on the appearance of a short, fuzzy, bristle, kind of look. A male's tail is also thinner than a female's when viewed from above. There's another difference in the swimmeret's (the paddle thingies under the tail), the male is supposed to have a pair that are longer, but I haven't been able to tell by just watching. Mating occurs just after the female molts when her shell is still soft. I've actually witnessed the "spawning" of these guys. After she molts she gets approached by a male and he flips her over onto





her back after which the male passes over her and flips away with his tail. It happens so fast you don't know what's happening unless you've done some research and are somewhat clued in. I watched it happen and it didn't quite set in to me until a while after it happened. The male that was involved was just coming into maturity as he didn't have very big claws.

This last summer I tried keeping them outside in a 300 gallon stock tank. For me and the shrimp it wasn't so successful. Put 10 shrimp out, got 7 shrimp back. I admit that I didn't add any food all summer, but I thought I'd at least get a few shrimplets out of it. As for the three missing, they may have died from going from inside to outside or it might have been that I missed them when I tried to bring them all in at once. It actually took 3 tries to bring in the 7. The last ones that I brought in actually survived more than one night in the forties (\*F), and the water temp that I measured was 64°F. In the aquarium they seem to get used to their environment and stay out in the open waiting for a morsel of food. Not so outside. They have a very good camouflage coloration that hides them really good, hey I didn't see them all summer.



Ideally these guys should be kept in a species only tank if you



wish to keep them for a while. Having had a little experience with another *Machrobrachium* species I thought that I'd take care of a population explosion of *Otopharynx* by putting the fry in a tank with some of the older shrimp in my population. They didn't harm a single fry! I'm reluctant to say that they are completely safe with fish, but so far I've introduced them into other tanks with various tank mates (the tank mates were too small to eat the shrimp) and not one fish has been harmed! The opposite can't be said of fish vs. shrimp, again we are brought back to the molt. Before the shrimp's shell can harden the fish will usually pick at them until the shrimp has no appendages left and then its lights out for the poor shrimp.

I like these guys A LOT! When you get near the tank they're sort of like cichlids, they seem to beg for food and watch your movements. They always watch. Even if they're hiding in a tipped over flower pot they always seem to try turn towards you like they're waiting for you to drop some food in. I guess it's because of that behavior that I don't feed my over population of shrimp to my bigger cichlids. If you've always had a curiosity to keep shrimp, these guys are great to learn from, easy to keep and not so small that you have to stick your nose to the glass to watch. I'm hooked!



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# *Sex Amidst the Ferns - Java Ferns That Is*

Wayne Toven

*Microsorium pteropus* commonly known to aquarists as Java fern, is an amphibious fern belonging to the family polypodiaceae. In the wild it is distributed through tropical Asia, where it grows attached to tree trunks, stones, or on moist ground which periodically floods. There are around 40 species, but only a few are suitable to aquarium cultivation. They also do well in paludariums and terrariums, which is usually how I maintain them. The plant has a densely scaled horizontal rhizome with numerous fine hairs and long roots. Whether grown emersed (out of water) or submersed (under water) it uses these hairs and roots to attach itself to driftwood, stones, or just into the substrate. When adding Java fern to an aquarium if the roots are long enough they can be buried in the substrate, but do not bury the rhizome, leave it on the surface of the substrate, if it is buried the plant will not do well. Java fern can also be loosely tied to a piece of driftwood or a rock with fishing line or thread to keep it in place until it can attach itself.

The leaves grow vertically from the rhizome on short petioles (stems), they vary in size from 4 – 12 inches in length and 2 – 2 ½ inches in width. Leaves are normally lanceolate or have 1 – 2 lateral lobes with smooth edges and are undulate (wavy), coloration varies from bright green to a dark olive green. The new leaves are spirally coiled in typical fern fashion.

Growth in the aquarium is best in soft to medium hard water, with a Ph in the range of 5.5 – 7, temperatures should be between 62 – 85 degrees F, and lighting should be of medium intensity. Vegetative propagation is done by rhizome partition and by removal of daughter plants, which grow on the edges of the leaves of mature plants. Sexual propagation is also possible, on plants grown emersed rows of small spore piles form on the undersides of the leaves, on each side of the midrib.

I've kept Java fern in aquariums for many years. They looked good and were healthy, multiplied through daughter plants, but the leaves only grew to about 5 inches long not the 12 inches like the books say. I had a couple of 29 gallon terrariums set up for tree frogs, which I also kept, they needed plants to hide in and under, so I used various Anubius, Cryptocorynes, Philodendrons, Pothos, and Java moss. Because the terrariums were well covered to keep the frogs from escaping, the humidity also stayed in, so I only had to mist the plants with water every 4 – 5 days. These two terrariums were located underneath a 150 gallon acrylic aquarium, so a timer set on a 12 hour cycle provided light of a single four foot full spectrum florescent light. One day I decided to add a piece of driftwood with Java fern on it, since they are kind of slow growing it took a while to see the change. The leaves grew longer eventually to about 11 inches, and wider, some stayed single lanceolate, but most changed to three lobed, with the center lobe the longest.



Over about 3 years the rhizome grew longer and eventually from the driftwood down onto the substrate which was a 50/50 mix of peat moss and top soil, about 2 ½ inches deep. The 29 gallon terrarium is now over half full of Java fern, some of the leaves are flat against the acrylic cover. One day when I was putting in some crickets for the frog to eat, I noticed on the underside of several green leaves rows of small round brown spots. I touched them and



a fine powdery substance came off on my finger, these are the spores (seeds). They can be sown in moist soil, I have not done this on purpose yet, but there probably are some on the floor of the terrarium, which you really can't see because of the density of the plant growth. A few months ago I was taking out some dead leaves, when I picked them up I noticed new plant growth from the spore piles on the underside of the leaves, yet another sexual propagation, so I put them back. The new plants were anywhere



from new sprouts to 1 ½ in tall plants, the new plants are slow growing, but that is normal according to the books. Since they are so delicate they get lightly misted more frequently, to prevent them from drying out. The new plants only seem to be growing on dead or nearly dead leaves; I don't know if that is when the spores are mature enough to sprout or what the deal is. Sounds like its experiment time, I will take some of the spores from a still green attached leaf, and some spores from a detached dead leaf that has not yet sprouted, sow them in moist soil and see which sprouts first, or if they both sprout at the same time. Some day this should happen, but for now I still keep some Java ferns in aquariums, but for the best growth and the largest plants I will continue with the terrariums.

#### References:

Encyclopedia of Water Plants, by Dr. Jiri Stodola

Aquarium Plants Their Identification, Cultivation, And Ecology,

byDr. Karel Rataj and Thomas J. Horeman

The Aquarium Plant Handbook, by S. K. Unnikrishnan

Aquariuum Plants, by Christel Kasselmann

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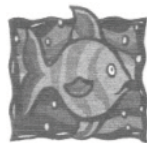
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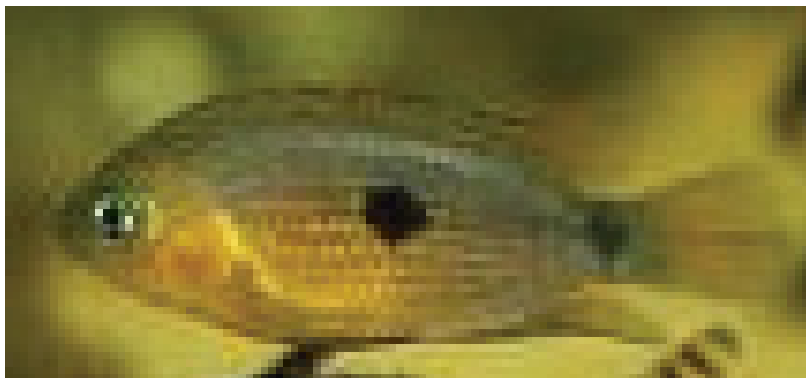
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# *Archocentrus myrnae*

## *A nice? Cichlid*

Bob Miller



*Archocentrus myrnae* comes from Costa Rica, where it lives in clear, swift water of high (8.4 pH) and a temperature in the high 70's. This fish has been often confused with a very similar species: *Archocentrus septemfasciatus*.

*Archocentrus myrnae* is a very attractive small cichlid, with a shy demeanor. They have a rounded body typical of other members of the same genus. Their color is a light brown above the longitudinal line and a delicate yellow-brown below it fading to a crème toward the tail. The female has a cluster of scales on her belly that are metallic golden in appearance which is amplified as spawning nears, The male also has similar colored although less intense colored scales from his chest to the caudal peduncle. There is a large dark spot midway on the body and another smaller at the base of the tail, both aligned with the eye. The pectoral fins are clear; the ventral fins are a medium blue-black. The dorsal, anal, and tailfins are a clear brownish color with some spangling of the fins. The females do have a dark spot in the dorsal. It is about 1/3 of the dorsal length from the anterior edge and is surrounded by more of those metallic golden scales on her belly. Although this handsome



fish is not spectacular in coloration, the beautiful electric blue iris of their eyes is riveting.

I purchased a group of five approximately  $\frac{3}{4}$ " to 1" in length at our Spring Auction. They were housed "temporarily" in a 10-gallon tank with 10 *Amphophilus festae* (Red Terror) also the same size. I say temporarily because at that time, I was attempting to build a fish room for the first time in over 47 years of fish keeping and I had nowhere else for them to go. Fortunately, Red Terrors are relatively slow growers and after a few months I was able to move the 1  $\frac{1}{2}$ " myrnae to a 20 gallon along with 10 *Cryptoheros cutteri* that were only about  $\frac{3}{4}$ " at the time. The tank was bare bottom, although as typical of my breeding and grow-out tanks there is a fair amount of "mulm" on the bottom thanks to my inability to keep plants alive for an extended period. I do not believe in the "spotless" tank theory. I think that this layer of detritus (plant material, mostly) is beneficial to the fish and fry as it is exactly what is on the bottom of their natural habitat and is a source of food for the young and adults and cover for the fry and even the adults to hide in. *Archocentrus myrnae* are a shy fish, except at feeding time and I have often found 2"-3" fish lying in this layer, partially covered, and apparently hiding from some real or imagined danger.

These five turned out to be two females and three males. When the largest male reached a little over 2" he and the largest female, about  $\frac{1}{4}$ " shorter decided it was breeding time. They took over a clay flowerpot and proceeded to deposit about 100 relatively large light brown opaque eggs. The eggs were placed on the upper quadrant of the flowerpot and the female guarded them vigorously. The water temperature was about 75 F and the pH was 7.8-8.0. I had been feeding them a diet of several types of flake food, frozen brine shrimp, occasional mosquito larva, and frozen bloodworms. The little female stayed within the mouth of the pot, not straying more than a couple of inches from it except for a quick dash for food and then right back. The male on the other hand did not enter the pot, but he defended a perimeter of about 6"-8" around the spawning site, chasing all interlopers away. He was not vicious in these "attacks" he simply chased the offenders until they were a safe distance away from his prospective family. The color pattern of the pair changed dramatically, the ground color turned into light

brown and their head and lower part of the body were now completely sooty black. The leading edges of the ventral fins were now black fading to a delicate blue on the soft rays of the fins. The interesting thing about this “guarding” color is that it fades somewhat and then intensifies greatly when the adult chases an intruder, then again fades until another trespasser appears.

The eggs, which numbered about 100, were large for a small cichlid although the fry were of typical small cichlid fry size. They hatched in approximately 3 days and were free swimming in about four more. The fry fed on various organisms and vegetable matter in the detritus layer of the aquarium in addition to feedings of live Brine Shrimp, de-encapsulated B.S., and Golden Pearls. The fry grow quickly and will be about ¾” by the time they are 90 days post hatching.

All in all this is a very nice cichlid, small (4”-5”) with a docile demeanor as far as cichlids go. They do not bother plants, they do not eat their tank mates, they are not picky about water conditions, and they are certainly not finicky about food. What more could you ask for?

## ***2008 GAAS Gold Barb Growth Program***



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## *2008 Christmas Party*

**Above:** Shawn Cisney and the McMonigle clan check out some of the interesting species of fish and plants available for out member's only livestock raffle.

**Below:** The “losers” hard-goods raffle table. Remember to save your tickets all year and turn them in at the December Meeting. We don't sell any new tickets at this meeting.



# Swap Meet

Welcome to our Aquatic Classifieds - a place where you can list fish and aquatic items that you would like to sell or trade or are interested in buy or trading for. There are a few simple rules to prevent problems and abuses of the system:

1. You must be a members of GAAS to list either Haves or Wants.
2. No retail or commercial sales establishments will be permitted to list.
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4. Ads are limited to six items only and may only be run for three issues of Tank Topics. (You must give the Editor notice before the publication deadline to have an ad re-run!)

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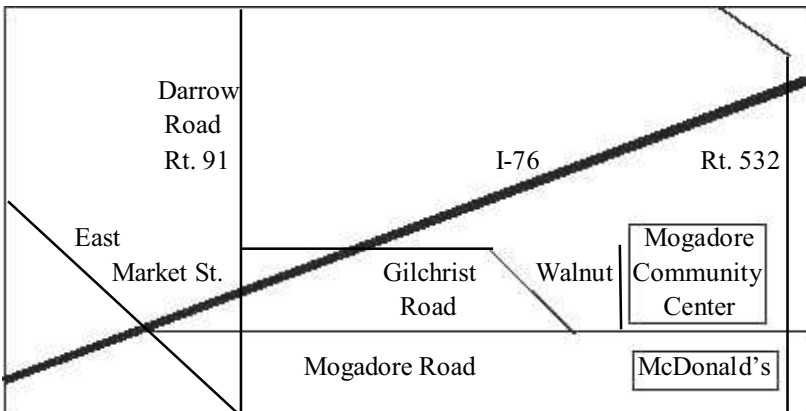
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