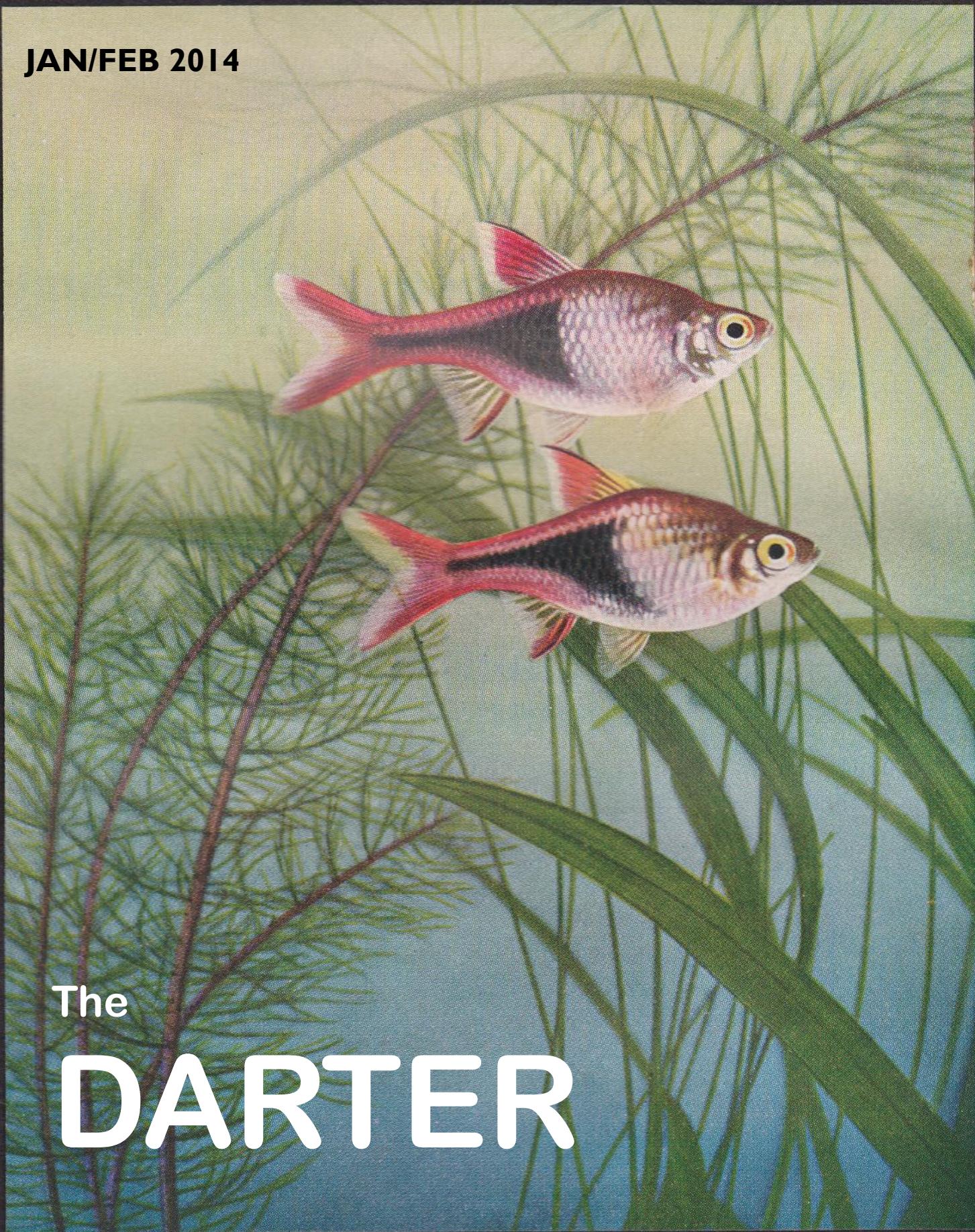


JAN/FEB 2014



The
DARTER

Rasbora heteromorpha

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By Ed Millinger
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# William T. Innes— Father of the American Aquarium Hobby

By Mark England  Page 17



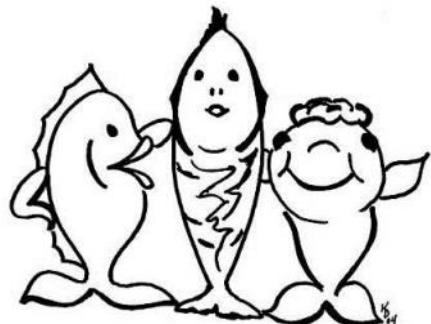
**Cover Art—frontispiece by William T. Innes,  
Exotic Aquarium Fishes, Philadelphia, Innes  
Publishing Company, 1949**

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## Membership

Annual membership in the Missouri Aquarium Society, Inc. is \$15 and includes an electronic subscription to *The Darter*. A printed subscription is available with membership for \$20. *The Darter* is published six times per year. You can join or renew your membership at any meeting, most club events, or by contacting Ron Huck, membership chair, at 314-481-2915.



## JANUARY 16 PROGRAM

### "SPAWNING LORICARIIDAE"

This talk will cover diet, conditions, caves and specialized equipment that can help you be successful.

You can meet at Bandanas BBQ on Dorsett Rd at 6 pm for dinner with the speaker. If you want to get in on this, give me a call, message or email right away before all the seats are gone. BTW make sure you look on this group for a listing that Barbie put up for Plecos that can be pre-ordered and delivered to the meeting. Some of this stuff is pretty rare so if you are serious about these fish this is the time to get busy and order. Perhaps order yourself a late holiday present! I also think I understood that Barbie will also be bringing a few select Plecos for our auction, so again another reason to clear your plate and attend this meeting!

On Friday, January 17, there will be a second talk, "Plecos Suck, and Why They are so Difficult!" held at Jerry Jost's fish room at Jost Chemical, off Hwy 170 and St. Charles Rock Road.

Contact me for details about dinner or the Friday meeting.

Gary Lange

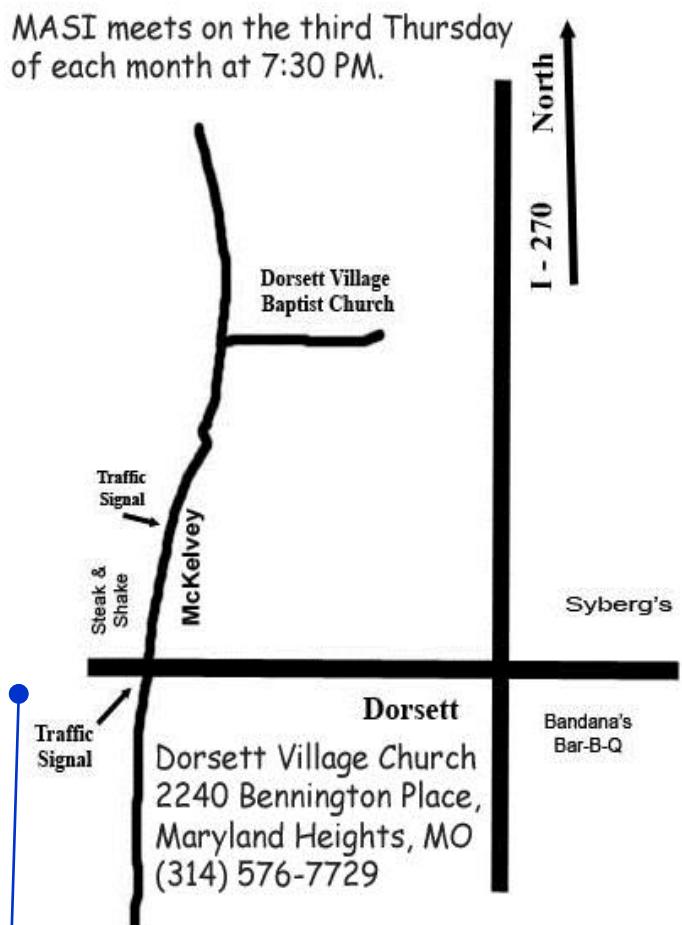
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[gwlange@sbcglobal.net](mailto:gwlange@sbcglobal.net)

#### January 16 Meeting

- Barbie Fiorentino on Loricariidae
- Monthly auction
- Raffle
- Refreshments
- For more information, email to: Kathy Deutsch at [info@missouriaquariumsociety.com](mailto:info@missouriaquariumsociety.com)

MASI meets on the third Thursday of each month at 7:30 PM.



#### About the Speaker

Barbie Fiorentino currently keeps just over 2000 gallons in aquariums for spawning Plecos, and 3000 gallons in her small specialty freshwater and saltwater shop in Spokane, WA. She has been spawning sucker mouthed catfish for more than 15 years. She has spawned 19 species to date. Barbie was the president of her local club for many years and is a long time moderator at [planetcatfish.com](http://planetcatfish.com). She enjoys any opportunity to talk about her favorite hobby with people that share that interest!



## FEBRUARY 20TH MEETING

### JEFF CARDWELL – “BACK TO BRAZIL, RIO NEGRO 2012”

Jeff Cardwell has been active in the aquarium hobby for more than 40 years. He maintains over 60 aquaria and his interests and expertise extend to catfish, killies, rainbowfishes and cichlids.

Jeff has traveled extensively to collect aquarium fishes in Brazil, Peru, Bolivia, Surinam, Uruguay, Mexico, El Salvador, the Bahamas and the U.S. Virgin Islands. An enthusiastic keeper of North America's native fishes, his

collecting trips have also taken him to many parts of the United States.

Both as a speaker and a judge, Jeff has been a familiar figure at shows throughout the Midwest for more than thirty years. He is an active member of the American Cichlid Association, the American Killifish Association, the American Livebearer Association, and the Circle City Aquarium Society.



## CLUB HOPPING

By Steve Edie

More events will be added as clubs firm up their schedules. Check with the individual clubs for more details.

|           |               |                                          |                                |
|-----------|---------------|------------------------------------------|--------------------------------|
| Jan 18    | Urbana, IL    | CAFÉ                                     | Auction                        |
| Feb 14-16 | Raleigh, NC   | Raleigh Aquarium Society                 | Annual Workshop                |
| Feb 16    | St Louis      | MASI                                     | Winter Auction                 |
| Mar 27-30 | Hartford, CT  | NEC                                      | Annual Convention              |
| Apr. 4-6  | St. Louis     | MASI                                     | Spring Show, Workshop, Auction |
| Apr 26-27 | St Louis      | Gateway Guppy Associates                 | IFGA Show                      |
| Apr 27    | Chicago       | GCCA                                     | Swap Meet                      |
| May 15-18 | St Louis      | American Livebearer Association          | Annual Show                    |
| May 23-25 | Chicago       | GCCA                                     | Cichlid Classic                |
| May 23-25 | Syracuse, NY  | American Killifish Association           | Annual Convention              |
| Jun 5-8   | Crossnore, NC | North American Native Fishes Association | Annual Convention              |
| Jul 10-13 | Louisville    | American Cichlid Association             | Annual Convention              |
| Jul 19    | Urbana, IL    | CAFÉ                                     | Auction                        |
| Aug 10    | St Louis      | MASI                                     | Summer Auction                 |
| Oct 4     | St Louis      | MASI                                     | Swap Meet                      |
| Oct 16-19 | Herndon, VA   | All Aquarium Catfish Convention          |                                |
| Oct 24-26 | San Antonio   | Federation of Texas Aquarium Societies   | Annual Convention              |
| Nov 7-9   | Chicago       | Aquatic Experience                       |                                |
| Nov 9     | St Louis      | MASI                                     | Fall Auction                   |
| Nov 21-23 | Cleveland     | Ohio Cichlid Association                 | Extravaganza                   |

## FROM THE PRESIDENT

**Pat Tosie**

2013 has come and gone, 2014 is here for a while and what a great year it is lining up to be for MASI! First off I would like to thank all the members, volunteers, participants, appointed officials and elected officers for making MASI's 2013 a great year and ask everyone to get even more involved with our 2014 activities.

2014 will be a fantastic year for MASI, besides our great monthly meeting and their featured speakers, we have our 3 auctions: February 16, August

10, and November 9. Our Spring Fling Fishy Thing is April 4-6 with an auction on April 6. We are hosting the American Livebearer Convention May 15 – 18 and our Annual Swap Meet will be October 4. Please participate and volunteer for these events.

MASI's elections will be here before you know it. Get involved in how our club runs, be an active member, volunteer, run for an office. In the upcoming months, Gary Lange will be looking for people to

run for President, Vice-President, Secretary, Treasurer, and Council members. We would love to have multiple people running for all these positions, I for one will run for another term as club President. Talk to, drop a note, or send an e-mail to Gary and get your name on our June ballot. We are always seeking out people to help make our club better and bring forth fresh ideas.

Keep looking below water....

Pat



## FROM THE EDITOR

**Mark England**



Please extend your thanks to Steve Deutsch, editor of *The Darter*, for the past ten years. Steve did a great job and I only hope I'll be able to follow his example.

This issue brings a new look to *The Darter*—more pictures, more graphics, and for the electronic version, full color. We hope you'll like it.

Every issue is a reflection of you and our club. Your willingness to share your knowledge with other members through an article demonstrates our joint commitment to promote the aquarium hobby.

Unfortunately, the cost of color or printed copies is prohibitive. Even black and white copies cost the club about \$2 per copy to have produced. I urge you to consider receiving your issue electronically via email. Each electronic issue is suitable for printing in full color from any computer. It's also easy to read online.

With your help, there will be six full color issues a year full of knowledge, ideas, commentary, and news about the fishy world.

I look forward to serving you.



## From The Fish Room by Ed Millinger

Welcome to our new editor Mark England. Be sure to thank Steve Deutsch for his ten years as editor. The Darter has been consistently strong for many years now and I am sure very few of us can comprehend just how much work is involved in putting together a publication on a timely basis. Thanks Steve for your patience with all of us and congratulations on some well earned free time. Let's all get behind Mark and support him with many contributions.

Submitting an article is an easy way to earn service points and contribute to the well being of the club. You don't have to be a poet laureate or a Pulitzer prize winner, and it doesn't have to be an advanced article. Many members would appreciate a beginner's fish article, so take some time and help Mark get off to a great start.

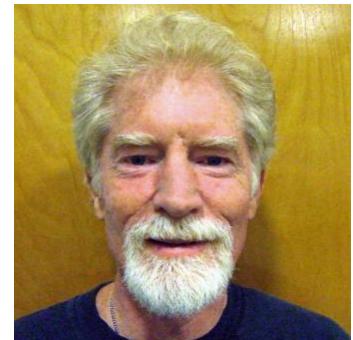
If you haven't spoiled your fish enough already Current-USA now offers ramp timers that are fully programmable 24 hour LED lighting controllers that not only turn your lights on and off, but it can simulate a gentle sunrise, sunset and moonlight. Their ad calls it therapy for your fish.

I bought some gold apple snails at Petsmart recently and was pleased to see the plastic bag they were put in had a message on it. It had printed on it Habitattitude, protect our environment, do not release fish and aquatic plants. You can go to habitattitude.net and you will find more valuable information. People thoughtlessly release fish that have outgrown their tanks into local waterways, plants, snails, or even smaller fish they believe they no longer have room or tolerance for. Just recently in Vermont a 17 inch clown knifefish was found only 40 miles from the U.S. offices of Amazonas magazine. I recently lost my large male Geophagus altifrons. I found him barely hanging on and placed him in a plastic bag and put him in the freezer. My wife checked into having him stuffed and found the cost estimate to be between \$100 and \$150 dollars. Apparently this humane way of retiring a fish is also the correct thing to do to prepare a fish for taxidermy. We didn't have it done but it was an interesting idea. What do you think? Would you have your favorite fish preserved?

The November 10th auction concludes a full year of events

at the Crowne Plaza Hotel, and what a year it was. It is not always easy changing show and auction/swap meet sites. You will invariably lose some attendees but then again you also pick up new ones. I think it is safe to say after a full year of events MASi is even in a stronger position than before, hats off to all involved in the decision.

I have mentioned it before but be sure to check



out [tedsfishroom.com](http://tedsfishroom.com). he has some great videos that I know you will like.



Please Check  
your Plastic-  
lined - Pocketed  
Pants At The  
Door.

## Electronic Distribution Now Available

For those who prefer, the Darter is now available electronically, instead of the paper distribution. To change from paper to electronic distribution, email me at [editor@missouriaquariumsociety.com](mailto:editor@missouriaquariumsociety.com). You will get your Darter sooner and the club will save printing and postage. And, as in 2013, you will save \$5 on your membership.

## FISHES AS DISHES

PATRICK A. TOSIE, SR.

# Alfredo Shrimp Tilapia

### Ingredients:

2 1/2 pounds tilapia fillets  
1 cup alfredo sauce  
3/4 pound shrimp, cleaned, shelled and deveined  
2 tablespoons creole seasoning  
1 sweet red pepper, sliced very thin into slivers  
3 tablespoons olive oil  
4 tablespoons butter, divided  
2 cloves garlic, finely minced  
3 tablespoons grated romano cheese or  
3 tablespoons parmesan cheese, for topping



### Directions:

Preheat oven to 425\*. Wash and dry tilapia filets, spread with olive oil and creole seasoning, to your taste. Place in well oiled baking pan, bake for 8-10 minutes, until just white. While fish is baking, saute slivers of red pepper in 1 tablespoons butter, until cooked, about 5 minutes. Warm alfredo in a small saucepan.

In a frying pan, melt 3 tablespoons butter, add minced garlic and cleaned, prepared shrimp, saute for about 5 minutes. When fish is ready, remove from pan from oven. Carefully remove filets, 4 per plate. Place one quarter of the red pepper slivers and one quarter of the cooked shrimp on top of filets. Top with 1/4 cup of alfredo, sprinkle of grated cheese and a dusting of more creole seasoning. If you like, you can put this under the broiler for about a minute.

## AUCTION UPDATE

By Mike Hellweg

Boy, the Holiday Season flew by! First was Thanksgiving/Hanukah. Before you knew it, Christmas and New Years were over and then everything ground to a halt under the grip of the Polar Vortex. The 2014 Annual Winter Auction is almost upon us. The last several auctions at our new venue have been excellent for both the buyers and for the sellers. For this next auction, if you are a new seller, please see our Vice President Gary Lange's excellent article on packing items to make them look good to prospective buyers that is posted on our Forum in the auction section. But please remember that auctions are not all about selling stuff.

Auctions are a social event. Come and spend a little time with your fellow members and have some fun. Grab a lunch with a few MASI folks at TGI Fridays in the hotel. Don't forget to bid! We have plenty of sellers bringing plenty of fantastic items. What we always need most are BUYERS! Even if you only have one tank, there are lots of great items at the auctions – magazines, foods, plants, books, equipment, and more! And of course, there is the raffle – a chance to win a new tank!

We can always use helping hands – from check in at 9:00 to the final sweep of the room at the end to make sure nothing's been left behind and all the time in-between.

Don't forget we take all major credit/debit cards via Square.

And for now, 'nuff said—Mike ([auction@missouriaquariumsociety.com](mailto:auction@missouriaquariumsociety.com))

# Winter Auction

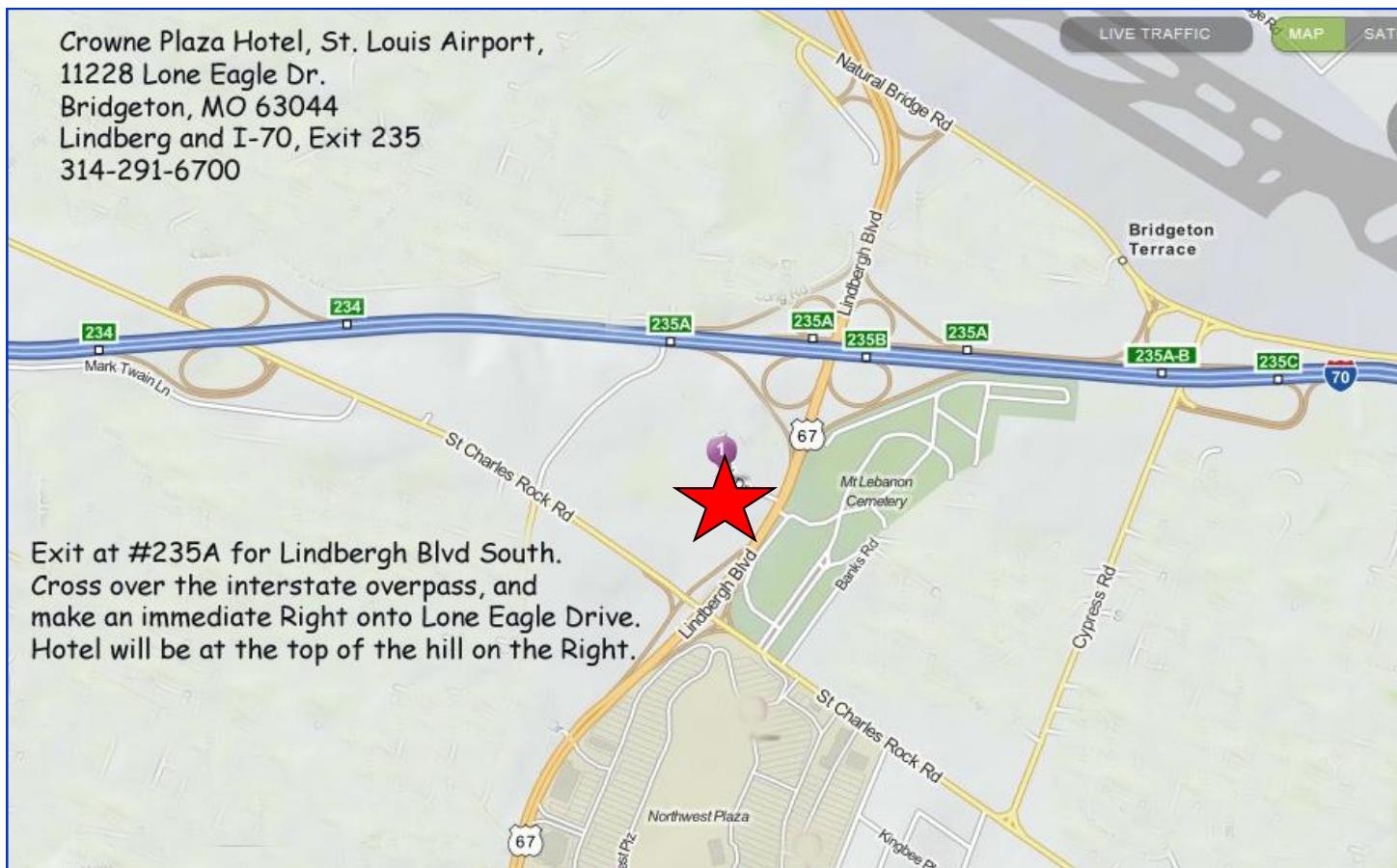
Crowne Plaza Hotel, St. Louis Airport

# Buy

**FEBRUARY 16**  
**10:00AM—Preview and buyer  
registration opens**  
**11:00 AM—Auction Starts**

# Sell

Information: Mike Hellweg at [auction@missouriaquariumsociety.com](mailto:auction@missouriaquariumsociety.com)



## What the Heck is the HAP? By Mike Hellweg

As we begin 2014, we're also starting off the 22nd year of the Horticultural Award Program, or HAP. Many of our newer members might want a bit of detail about the program. Basically, it is set up to encourage members to keep and grow aquarium plants, share them with other club members, and share information about how members propagate their plants. You earn points for each species submitted. The list of species and points is on the MASI website. With accumulated points, you earn trophies. There is also the fun of competition. For example, Derek Walker and I enjoy trying to top each other every year!

Think you can't grow plants, or you can't afford one of those super expensive high tech systems? Guess what? You don't need a high tech super expensive system to grow many, many types of aquatic plants indoors! When we started the program 20 plus years ago there were no special substrates, only a few tablet-type fertilizers, and the only special plant bulb was the "Gro-Lux" bulb. High tech of the day was super hot and expensive-to-run metal halide lights converted from security lighting systems, along with an undergravel heating cable that often shorted out. Most of us opted for "low tech" solutions even then. Yet even without what many folks now think are "necessities", folks had no problems growing hundreds of species of plants. To further encourage you, I

found a detailed article on growing aquarium plants from 1864. Yes, that's when Lincoln was president and the Civil War was raging! It reported flowering and what we now call pearlizing as expected plant behavior on indoor aquarium plants over 15 years before even the electric light bulb came along. So while the high tech stuff helps, and for some species it is needed, it's not always necessary! Generally speaking, true aquatic plants grow very well under "low tech" conditions. It's only when we try to keep marginals, submerge plants from the savannah where they get direct sun, or even in some cases non-aquatic plants underwater that we absolutely need all of the extra equipment.

Unlike the BAP where you can only submit a species one time, for the HAP you can submit a plant species up to three times – once each for a vegetative reproduction, a bloom, and for a seed. We also recognize hybrids – they are a HUGE part of the plant hobby and are not considered forbidden by even the most advanced of plant hobbyists. Without hybrids we wouldn't enjoy most of the fruits we eat today, roses, water lilies and many ornamental plants. Furthermore, you can submit either an indoor bloom or an outdoor bloom. In order to submit the seed reproduction, you first have to submit a bloom, though. Since blooms and seedlings are time sensitive and may last only a short time, to

make submission easier you can submit a photo of a bloom or seedling. A full set of rules is listed on the MASI webpage ([www.missouriaquariumsociety.com](http://www.missouriaquariumsociety.com)).

About a quarter of our membership today participates in the program, which is great. You don't have to feel inadequate if you only grow duckweed or Java moss. Those are very useful plants and many folks grow them! Yes, you might get a bit of friendly teasing, but what those teasing you might not tell you is that they have those plants in their tanks, too. They likely submitted those species years ago AND got the same teasing! It's part of the fun. Every year we get submissions of everything from duckweed to marine algae to water lilies and other pond plants. All plant submissions are welcome.

The most popular submissions by far are *Anubias barteri* in all of its forms and Java Fern. We've had well over 1500 different species from nearly 80 families submitted by over 70 different members in the past 20 plus years!

The only things we don't rec-



ognize are some of the lower forms of algae (aka pest algae) and non-aquatic plants that are often sold in pet stores as "aquarium plants". Gee, I wonder why they die so quickly? Higher algae such as the many marine plants and the popular "algae balls" are allowed. There also are a few species such as Purple Loosestrife that are illegal in Missouri. Those are also not allowed, as are some of the species on the Federal Noxious Weed list whose interstate transport is outlawed. A full and up-to-date list is on the MASI webpage, too.

So go ahead and give it a try! The HAP program welcomes you!



*Anubias barteri*

## 2013 HAP Year End Totals by Mike Hellweg

Wow! What a great year! 2013 followed up on the 2012 Aquatic Gardener's Association convention here in St. Louis and it shows. We're up about 300% from 2012 submissions (an average year) and we have several new participants. I hope this continues into 2014. Good work everyone!

I would especially like to point out our illustrious Vice President, Gary Lange. After being the very first person to submit entries for the fledgling HAP way back in January of 1992, he FINALLY reached the level of Grand Master by submitting two seed reproductions and writing about them for the Darter. Of course, he did it in style with 2 really difficult species. Good going, Gary!

Keep 'em Green!

Mike

### SUMMARY RESULTS:

108 entries from 14 entrants represent 79 different species from 34 different families

5 Outdoor Blooms

10 Indoor Blooms

5 Seed Reproductions

88 Vegetative Reproductions



The most widely propagated species in 2013 was Cabomba caroliniana - with 4 submissions from 2 different variants.

The most frequently submitted genus in 2013 was Ludwigia - with 7 submissions from 5 different species.

| Participant                   | Points 2013 | Submissions 2013 | Total Points | Total Species | Indoor Bloom | Outdoor Bloom | Seed | Rank                 | Award Status            |
|-------------------------------|-------------|------------------|--------------|---------------|--------------|---------------|------|----------------------|-------------------------|
| Andy Walker                   | 145         | 9                | 675          | 48            | 9            | 0             | 1    | Master               | To be presented         |
| Charles Hoppe                 | 5           | 1                | 120          | 14            | 1            | 0             | 0    | Advanced             |                         |
| Chris Mohrle                  | 20          | 1                | 20           | 1             | 1            | 0             | 0    |                      |                         |
| Cory Koch                     | 80          | 8                | 100          | 10            | 1            | 0             | 1    | Advanced             | To be presented         |
| Derek Walker                  | 5           | 1                | 3245         | 245           | 20           | 7             | 13   | Exalted Grand Master |                         |
| Dwayne Peters                 | 80          | 8                | 165          | 19            | 1            | 0             | 0    | Advanced             | To be presented         |
| Evan Wright                   | 145         | 11               | 145          | 11            | 0            | 0             | 0    | General, Advanced    | To be presented         |
| Gary Lange                    | 350         | 26               | 1565         | 121           | 10           | 13            | 2    | Grand Master         | To be presented         |
| Holly Paoni Wise / Kevin Wise | 130         | 15               | 130          | 15            | 0            | 0             | 0    | General, Advanced    | To be presented         |
| James H. Miller               | 15          | 1                | 355          | 36            | 2            | 0             | 0    | Senior               | Needs 1 Seed for Master |
| John D Bloch                  | 25          | 3                | 25           | 3             | 0            | 0             | 0    |                      |                         |
| Marlon Felman                 | 5           | 1                | 130          | 15            | 2            | 4             | 0    | Advanced             |                         |
| Mike Hellweg                  | 125         | 12               | 3315         | 240           | 37           | 15            | 15   | Exalted Grand Master |                         |
| Nick Scarlatis                | 95          | 11               | 100          | 12            | 0            | 0             | 0    | Advanced             | To be presented         |

## Breeders Award Program by Steve Edie

| Month  | Member           | Species                                                   | Common              | Pts | Total |
|--------|------------------|-----------------------------------------------------------|---------------------|-----|-------|
| Nov 13 | Eric Beger       | <i>Epiplatys roloffi</i> *                                |                     | 15  | 105   |
|        |                  | <i>Aphyosemion celiae celiae</i> *                        |                     | 20  | 125   |
|        |                  | <i>Aphyosemion ogoense</i> (80-24) *                      |                     | 20  | 145   |
|        |                  | <i>Aphyosemion splendopleure</i>                          | "Tiko Green"        | 15  | 160   |
|        | Charles Harrison | <i>Astatotilapia aeneocolor</i> @                         | Yellow Belly Albert | 20  | 2710  |
|        |                  | <i>Corydoras paleatus</i>                                 | "Long Fin"          | 10  | 2720  |
|        | Mike Hellweg     | <i>Systomus anchisporus</i> "Borneo" *                    | True Tiger Barb     | 15  | 5724  |
|        | Steven Hoffman   | <i>Limia melanogaster</i>                                 |                     | 5   | 140   |
|        |                  | <i>Oryzias latipes</i>                                    | Rice Fish           | 5   | 145   |
|        | Pat Tosie        | <i>Melanotaenia affinis</i>                               |                     | 10  | 4215  |
|        |                  | <i>Xystichromis phytophagus</i> @                         |                     | 20  | 4235  |
|        | Derek Walker     | <i>Tilapia bythobates</i> @                               |                     | 30  | 2990  |
|        |                  | <i>Cyathopharynx foai</i> "Sibwesa"                       |                     | 15  | 3005  |
|        |                  | <i>Girardinus microdactylus rivasi</i> "Isle de Juventud" |                     | 5   | 3010  |
|        |                  | <i>Pundamilia nyererei</i> "Python Island" *@             |                     | 25  | 3035  |
|        |                  | <i>Xiphophorus xiphidium</i> "Rio Purification"           |                     | 5   | 3040  |
| Dec 13 | Charles Harrison | <i>Pachypanchax omalonotus</i> "Nosi-Be" *@               |                     | 15  | 2735  |
|        | Pat Tosie        | <i>Hemichromis guttatus</i> "Nigeria" *                   |                     | 15  | 4250  |
|        |                  | <i>Pelmatochromis buettikoferi</i>                        |                     | 15  | 4265  |
|        |                  | <i>Pundamilia nyererei</i> "Makobe Island" @              |                     | 20  | 4285  |
|        |                  | <i>Stomatepia mariae</i> @                                |                     | 30  | 4315  |

\* = First MASI species spawn (5 point bonus)

\*\* = First MASI species and genus spawn (10 point bonus)

\*\*\* = First MASI species, genus and family spawn (15 point bonus)

@ = C.A.R.E.S Species at Risk (Double base points)

# = Species previously submitted = 0 points, except for C.A.R.E.S. = base point bonus

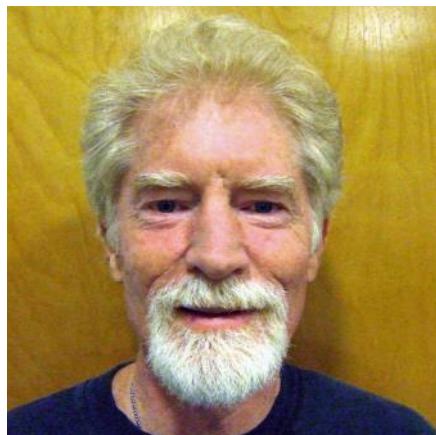
^ = Species previously submitted, limited points for additional color varieties

Sources:

Cal Academy - <http://research.calacademy.org>

CARES - <http://www.carespreservation.com>

## WILD CAUGHT GEOPHAGUS BRACHYBRANCHUS FROM GUYANA



By Ed Millinger



Ed Millinger photo

*"I highly  
recommend you  
give these fish a  
try—you won't be  
disappointed."*

Last year as a combined birthday and Christmas present my wife bought me some fish from The Wet Spot in Portland, Oregon. I am on their e-mailing list which includes a weekly newsletter highlighting new fish, along with their updated fish availability list. It is a very informative newsletter that you should look into. The Wet Spot has a large selection of fish and they do a great job of safely shipping your fish. In the last issue of The Darter I wrote about spawning Geophagus crassilabris. This time I will tell you about Geophagus brachybranchus. This was the other Geo that my wife had ordered at that time. Brachybranchus, like

altifrons and surinamensis, grow quite large. The males can reach ten inches with the females slightly smaller. The big distinctive character with brachybranchus is their black throat and their mostly reddish fins. Some refer to them as the black throat Geophagus.

When the fish came in they were one and a half inches to two inches long. It was impossible to sex them at this small size. I housed them in a 55 gallon tank and they quickly became comfortable with their surroundings. I fed them a variety of frozen foods in the morning and Premium Naturals flake food from Mike Hellweg in the evening along with a mixture of six different pel-

lets. I also gave them black worms after the flake food at first and then switched to red wigglers when my supply of black worms ran out. Water changes were performed weekly. The fish grew quickly and presented no problems whatsoever. During the summer I was able to trade a pair of fish to Mark Theby for a 75 gallon stand. After sanding and painting the stand I put it where my double 55 gallon stand was and bought a new 75 gallon tank from Tropical World on Watson. This new stand held a 75 on top and a 40 breeder on the bottom next to a 20 high turned sideways. To say that the brachybranchus were happy in their new 75

## WILD CAUGHT GEOPHAGUS BRACHYBRANCHUS FROM GUYANA (CONTINUED)

would be quite the understatement. They loved their larger surroundings and continued to grow even faster. By now I could sex them as one male and three females. Like the altifrons the male grows larger and has longer fin extensions.

As with most Geo's (earth eaters) you can forget about

placing any plants in the substrate. They are constantly sifting through the gravel and piling it here and there. So other than a little floating hornwort the only other thing I placed in the tank was a large flat rock. I filtered the tank with a number four sponge filter and a corner box filter filled with pillow stuffing and

sphagnum peat moss inside a knee high stocking. As the fish grew their colors really stood out and they have now become my favorite fish. I love fish that don't scare easily and run and hide every time you approach them.

The day before our November meeting I noticed that the col-

*"As with most  
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Ed Millinger photo

## WILD CAUGHT GEOPHAGUS BRACHYBRANCHUS FROM GUYANA (CONTINUED)

ors of the male and one female were intensified. The black throat really stood out now even more than before. That evening the female started to lay eggs on the flat rock, followed by the male. I would estimate a total of around a hundred eggs were laid. What I found strange was, while guarding the eggs, the male would throw gravel by the eggs and while the female stood guard the gravel would disappear. Neither one fanned the eggs as many cichlids do. What with the gravel around the eggs and the fact that neither one fanned them constantly I decided to remove some to a hatching tank (the 20 high). I moved

around 20-25 eggs and used API's Fungus Cure. When I returned home on Friday I was glad I had pulled some eggs as the rock in the 75 now was covered with white fuzzy eggs. On Saturday I noticed some of the eggs in the twenty starting to wiggle. It was fun to watch them bounce around but I only counted four wigglers and found that a little depressing. After a few more days their yolk sac was gone and I started them on micro worms. It was about this time that as I walked into the fish room I noticed that the pair had started digging pits in the gravel. I found this strange thinking what were they going to do, lay eggs on

the tank bottom? Well to my relief I discovered they were building the pits so they could have a place to release their fry and be able to guard them more easily. Yes, apparently not all of the eggs had gone bad! I finally saw some fry in the 75. They were quickly gathered up by the female and returned to her mouth. Over the next few days I observed the male and the female taking turns holding the fry. The other would then eat. With two other females in the tank being a threat I decided to strip the fry from the female. I caught her in a large net and rubbed her throat and she spit out a few fry, but I had better luck

prying her lips apart. Not wanting to stress her too much I caught her with my hand and returned her to her tank and moved the fry to the twenty to join the other four. I now had around thirty and was feeling much better. I fed micro worms the first few days and then added live baby brine to their diet. Shortly after feeding I siphoned off the excess food and added fresh water. The fry tend to stay together and with daily water changes and four or five feedings they are growing fast. I highly recommend you give these fish a try—you won't be disappointed.



## WILLIAM T. INNES – FATHER OF THE AMERICAN AQUARIUM HOBBY



By Mark England

“Before Amano, before Axelrod, there was William T. Innes.”



Before Takashi Amano, before Herbert Axelrod, there was William T. Innes. Innes was the leading authority of the aquarium hobby during its formative years following WWII. He published what was to many hobbyists the bible of tropical fish keeping, *Exotic Aquarium Fishes*. First published in 1935 and printed in 19 editions, the book described the basics of aquarium keeping to generations of aquarists.

When I got my first aquarium on my twelfth birthday, a used metal framed, slate bottomed ten gallon tank, I was fortunate to receive a copy of *Exotic Aquarium Fishes* with the tank. I read it cover to cover absorbing the basics of water quality, temperature, and disease control. I’m sure I made all the mistakes that beginners can make, but with Innes’ book at my side, I learned to do better.

Today, Innes’ seminal work is a collector’s item. It is best known for the color plates of tropical fish. These were black and white photos that were hand colored to accurately represent the true colors of the fishes. Color photography in 1935 simply didn’t meet Innes’ standards and the color plates can be considered true works of art. A first edition bound in green hard cover with gilt embossing recently sold on eBay for \$500.

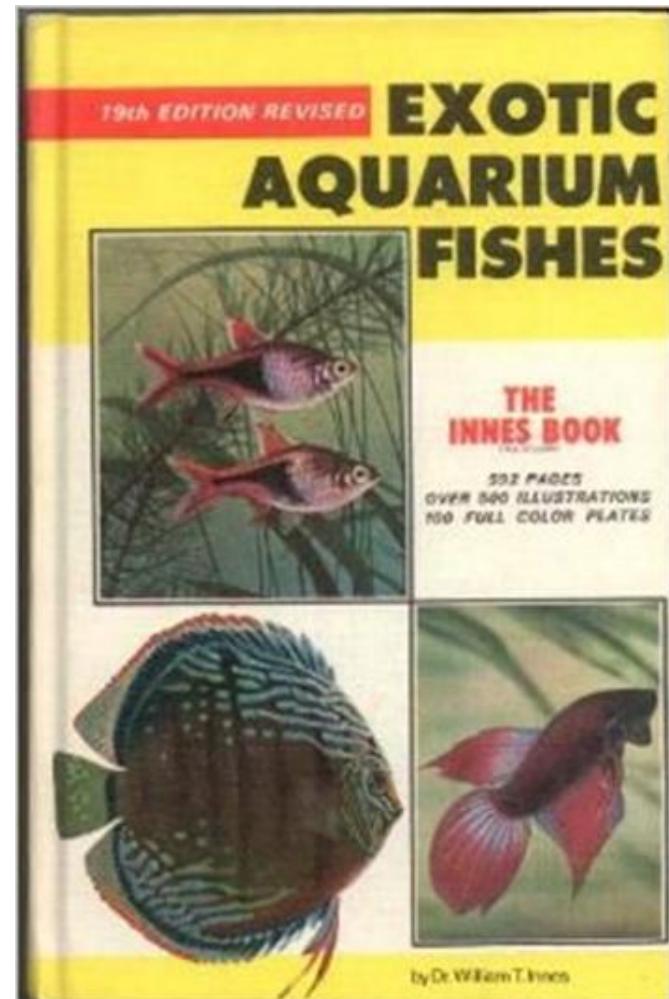
The book was at the center of a lawsuit when Herbert Axel-

rod published some of the illustrations without permission. In 1955 Innes sued and won. After Innes ceased publishing *Exotic Aquarium Fishes* and failed to renew the copyright, Axelrod published the “19<sup>th</sup> edition revised.”

Innes was also well known as the publisher of *The Aquarium*, the first national magazine for the hobby. It was published monthly from 1932 to 1967, ceasing publication two years before Innes’ death.

*Paracheirodon innesi*, the neon tetra, is named for Innes, as well as several other species of fish and plants.

In 1954, Dr. George S. Myers wrote a tribute to him, in the February issue of *The Aquarium*, referring to William T. Innes as “the best known and most respected aquarist and authority on aquariums in the world. His books, his photographs and his influence on this field have educated millions.” I’m thankful he helped a twelve year old to a good start in the hobby.



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| Sell     | Charles Harrison | Thiosulfate crystals (Chlorine Remover) - half pound                                                                                                                         | \$3.00    |                    |
|          |                  | OTO double strength Chlorine/Chloroamine test kits - 4 ounce                                                                                                                 | \$12.50   | (314) 894-9761     |
|          |                  | Flubendazole, 10% powder 25 grams                                                                                                                                            | \$20.00   | charles@inkmkr.com |
|          |                  | Lavamisole HCl Powder - 5 grams treats 100 gallons                                                                                                                           | \$10.00   |                    |
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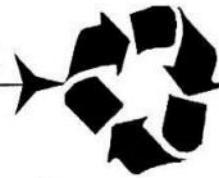
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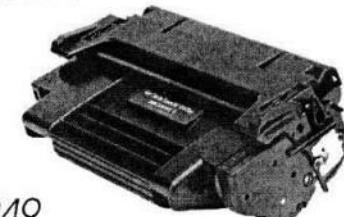
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