

V43#5

The DARTER



September/October 2017

B&W Printed \$3 Members / \$5 Non-members

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Join or renew membership at any meeting, most club events, by PayPal from the MASI Website's Membership Page or by contacting the membership chair.



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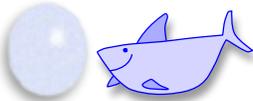
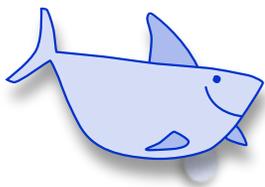
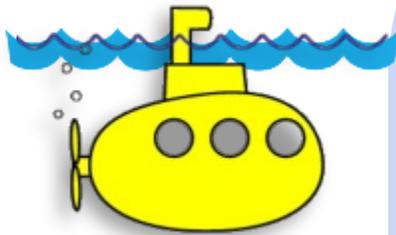
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FROM THE PRESIDENT'S TANK

Pat Tosie

strong backs and trucks to move these items. Jerry Jost has so said we can store the tanks at his business while we sell them, Thank you Jerry.

On another note, **we are still in need of a Show/Convention Chairperson.** Whom of you will step up to the plate and take on this position? Their major job will be officiating at the Super Bowl and helping guide us through the much reduced Spring activities (we are not having a spring convention/show). PLEASE let me know if you are interested.

Summer is winding down and we have a few events coming up, the **Sailfin social** and CAFE meet-up, then the **SWAP MEET** and then **MASI's Fish Bowl** and social -and it is getting bigger every year! MASI's Fish Bowl is a FREE bowling event for you to bring family to and socialize with other members.

Don't forget, we are still raising money for the MASI Challenge, The Stuart Grant Fund, PLEASE bring donations to the meeting for Auction or to the Swap Meet and we can sell them at the MASI table.

Lets make this year one of our best!

Keep looking below water....

What an interesting year we have been having!

There have been many changes with the loss of several members and I am still feeling the changes. Sometimes it is just hard to accept, but we need to push on. We have sold all of Jim's fish now and the next step is to move his tanks and equipment and we will need some

FROM THE EDITOR

Chuck Bremer



Interesting year indeed!

See New Advertisers in this issue!! We have ADDED three Local Fish Shops advertising our events. **PLEASE! Visit all our LFS's** and show them you also support them. The Local Fish Shops (LFS) can't survive without you, the Aquarium Hobbyists of the St Louis area. We hope to add others in the future.

Do your part and Contribute!! We have 18 pages of Fishy interest articles in this issue from 6 authors. All did an excellent job and covered their subjects very well. However, **we need articles about more species of fish.**

Look at the list of recently spawned 15 & 20 point genera on page 8. If you are one of the Spawners please consider writing a short article to share your experiences with these species. You are the future of the hobby and owe it to others to pass on information you have gained to help them maintain these species. We will do our part to publish those articles and help you pass on the information. **The DARTER gets wide distribution, it's your chance to become recognized.**

October will be a BIG month!! Don't forget the October 1st **SWAP** or the October 19th **SuperBowl**. Monthly Bowl Show entries have been slim...you must be waiting to create a big SuperBowl.

Hopefully we are able to keep The DARTER interesting and informative for you as well but we need your help.

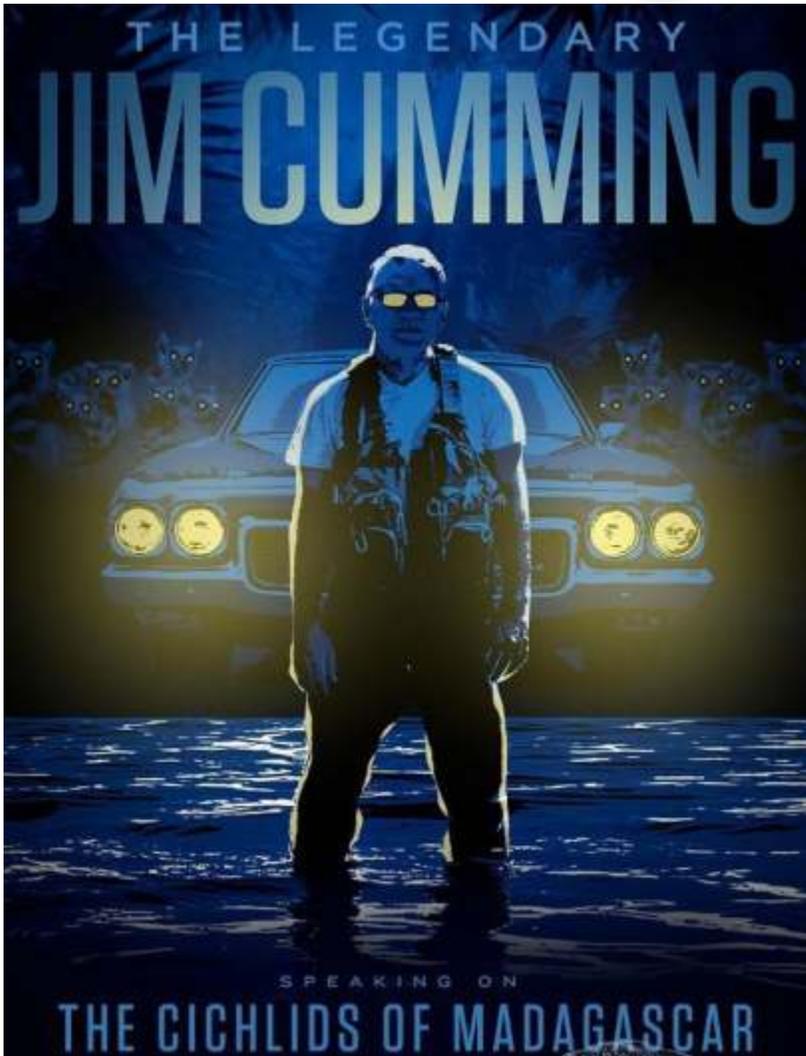
Deadline for the November Darter is Election Day, Nov. 7th!

Send us an Article!!

[Send Feedback and Letters to the Editor to: editor@missouriaquariumsociety.com](mailto:editor@missouriaquariumsociety.com)



MASI General Meeting - Thursday, Sept 21st!!



The Cichlids of Madagascar A Land in Crisis

- Where Madagascar is located, how it got there, size and its current state.
- Global importance in distribution of all cichlids.
- Described genera of endemic cichlids
- Species that Jim has experienced and a more detailed look at some
- The people behind the cichlids
- Saving a species from extinction and conservation.
- The future of the endemic fishes, and fauna in general.

7:30 PM Dorsett Village Church - 2240 Bennington Place, Maryland Heights, MO



Additional Info about our September Speaker

Jim Cumming



Jim Cumming hails from Winnipeg, Manitoba, Canada and is a lifelong fish keeper involved in this wonderful hobby for over 50 years. Other than a fifteen year sojourn into the world of killifish he has kept and presently keeps mostly Central and South American cichlids, but devotes about one third of his 40 aquarium fish room to Madagascan cichlids and the Etroplus genus from India. He has given this presentation to the Winnipeg and Saskatoon Aquarium Societies, the NECA, the Bermuda Aquarium Society, the Dead Fish Order, the OCA, the GCCA, the Durham Regional Aquarium Society, the Great Salt Lake Aquarium Society and the Rocky Mountain Cichlid Group. Later this fall, he will be at a 'workshop' weekend with the Aquarium Club of Edmonton, and in San Francisco and Sacramento. Jim has also had extensive collecting experience in Mexico, Belize, Cuba, Brazil and the southern U.S.



Jim maintains a very active YouTube channel with over 540 videos, highlighting the fish he keeps or has kept, with the emphasis on maintenance and breeding. He is also a moderator for several Facebook forums, contributes regularly to other on-line forums as well (CRC, ACA, MFK, and the Winnipeg Fish Forum) and has had articles published in Amazonas and Cichlid News magazines. Also a Species Specialist and a speaker for the CARES program, he looks forward to enthusiastically spreading the word on this magnificent group of fishes.



7:30 PM Dorsett Village Church - 2240 Bennington Place, Maryland Heights, MO



MASI General Meeting - Thursday, Oct 19th!!

2017 SuperBowl & Members discuss spawning difficult Genera!



<i>Akysis</i>	<i>Girardinichthys</i>	<i>Pygocentrus</i>
<i>Allomogurnda</i>	<i>Hemichromis</i>	<i>Pyrrhulina</i>
<i>Aphyosemion</i>	<i>Hemitalapia</i>	<i>Rasbora</i>
<i>Apistogrammoides</i>	<i>Hypancistrus</i>	<i>Rineloricara</i>
<i>Aspidoras:</i>	<i>Hyphessobrycon</i>	<i>Scleromystax</i>
<i>Betta</i>	<i>Inlecypris</i>	<i>Sewellia</i>
<i>Boraras</i>	<i>Jenynsia</i>	<i>Skiffia</i>
<i>Callopanchax</i>	<i>Lamprichthys</i>	<i>Spathodus</i>
<i>Champsochromis</i>	<i>Lethrinops</i>	<i>Sturisomatichthys</i>
<i>Chortheros</i>	<i>Lichnochromis</i>	<i>Symphysodon</i>
<i>Crenichthys</i>	<i>Nannostomus</i>	<i>Synodontis</i>
<i>Ctenops</i>	<i>Neolebias</i>	<i>Taeniacara</i>
<i>Elassoma</i>	<i>Pangio</i>	<i>Tanganicodus</i>
<i>Enantiopus:</i>	<i>Paracyprichromis</i>	<i>Thorichthys:</i>
<i>Eretmodus</i>	<i>Petrochromis</i>	<i>Xenotilapia</i>
<i>Farlowella</i>	<i>Placidochromis</i>	
<i>Fundulopanchax</i>	<i>Polycentrus</i>	

MASI General Meeting - Thursday, Nov 17th!!

Cool Water Fishrooms

Michael Gaines is President and cofounder/instigator of the Northwest Arkansas Aquarium Society (NWAAS) and former president of the Heart of America Aquarium Society (HAAS) and served on the BOD for the American Livebearer Association (ALA).

Though a wide variety of fishes pass through his fishroom, there are always live bearers hanging around somewhere! He has bred around 70 species and is currently infatuated with barbs and rasboras.

Michael says "There are a lot more fish that work well in a Cool Water Fishroom than most fishkeepers realize! This has been one of my best received presentations."



7:30 PM Dorsett Village Church - 2240 Bennington Place, Maryland Heights, MO



MASI Club Outing and Multi-Club Social: Saturday, September 23!!

MASI is holding a social event with the Champaign Area Fish Exchange (CAFE) Saturday, September 23, at 6:30 pm at Sailfin Pet Shop in Champaign. Both CAFE and Tri-County Tropical Fish Club (TCTFS) will be there as an after-hours behind the scenes visit to Sailfin Pet Shop. The event will include pizza and beverages. Sailfin will be open after-hours just for us to see areas that are not open to the public.

At Sailfin, all fish will be 30% off during this event. Discount on non-fish items is 15% on most items to Sailfin members. <http://www.sailfin.com/>

There will be a Car Pool sign-up sheet at the Sept. MASI meeting.



Over 100 tanks and **HUNDREDS** of Freshwater species!!

Sunday, Oct 1st

**Buyers
in at
10:00**

Everything needed to set up & maintain aquariums for Beginner to Advanced Hobbyists

Specialty Vendors of Aquarium Equipment (lighting, tanks, filtration, etc.); Many Cichlids, Live Bearers, Tetras, Catfish, and other Fish; Plants; Decor and Foods



2017 MASI SWAP MEET

MISSOURI AQUARIUM SOCIETY

CROWNE PLAZA[®]

11228 Lone Eagle Dr, Bridgeton, MO
Off I-70 by Lambert Airport

Includes Locally, Regionally and Nationally known sellers!

Vendors Contact Mark Theby (alicehill_1@yahoo.com) for Tables; Vendor Set Up at 9:00.

Watch www.MissouriAquariumSociety.com for a list of Vendors soon



Coming MASI Programs

2017 MASI Dates to Remember:

9/21/2017	General Meeting	Dorsett Village Church	7:30 PM
9/23/2017	Sailfin/CAFÉ Social	Sailfin Pet Shop; Champaign, IL	6:30 PM
10/1/2017	SWAP	Crown Plaza Hotel	10:00 AM
10/14/2017	Council Meeting	Pat Tosie Home	7:30 PM
10/19/2017	General Meeting/ SuperBowl	Dorsett Village Church	7:30 PM
10/21/2017	Bowling Social	Epiphany Lanes	6:00-9:00 PM
10/28/2017	Council Meeting	Corridini/Sultan Home	7:30 PM
11/16/2017	General Meeting	Dorsett Village Church	7:30 PM
11/19/2017	Auction	Crown Plaza Hotel	9:00 AM
12/2/2017	Council Meeting	Harrison Home	7:30 PM
12/21/2017	Christmas Party	Dorsett Village Church	7:30 PM

...Don't miss another!!

MASI FISH BOWL

EPIPHANY LANES 6:00 - 9:00 PM

Saturday, October 21st, 2017

Free Bowling and Shoes provided for MASI Families and Guests

No outside food is allowed but there is plenty of food and drink offered at the Venue!



3164 Ivanhoe Ave.

St. Louis, MO 63139

314-781-8684

Just off I-44 At Arsenal or Jameson



Christmas party...
December 21!



Will Santa be There?





Monthly Bowl Show

Chris Mohrle

Why wasn't your fish entered?

July - 4 Entries

Livebearers

Place	Fish	Owner
1	Scarlet Endlers Male	Connie Bremer
2	Yellow Deltatail Guppy male	Connie Bremer
3	½ Black Rosetail Pastel Guppy male	Connie Bremer

Open Class

Place	Fish	Owner
1	<i>Betta rubra</i> Spadetail Male	Chuck Bremer

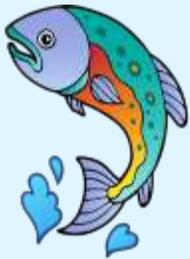
August - 3 Entries

Anabantids

Place	Fish	Owner
1	<i>Betta splendens</i>	River Kinder-Russell

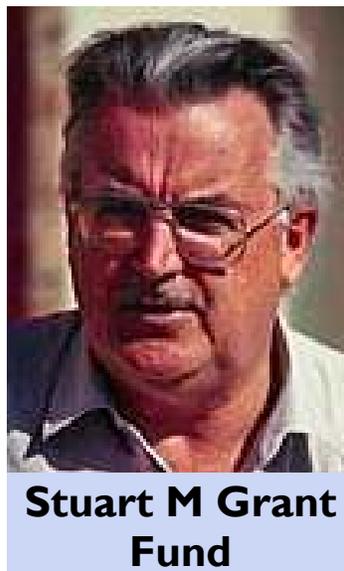
Open Class

Place	Fish	Owner
1	Fancy Guppy	River Kinder-Russell
2	Glo-Fish™ Tetra	River Kinder-Russell

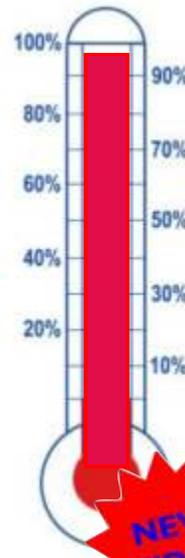


Contribute to Help incentivise Ad Konings as a speaker next Spring!

MASI Challenge
2017 Net Busters



Stuart M Grant Fund



GOAL:
\$2000+

Current:
\$ 1926



Mark Theby

SWAP CHAIRMAN**Fall SWAP - 1 October, 2017****Hey listen up!**

I guess Chicago swap just believes they are the only swap out there.... Well, we are going to have a super swap this year anyway.

Our tables are being taken up as you are reading this. So all the vendors thinking about picking out a table they are going fast!

Sellers that have tables so far are our classic vendors around town: Mike Hellwig, Midwest Tropical Fish, Gary Lange, Bob and Lora Watson, Jim Lovins, and Chris Mohrle- to name a few.

So please come on **October 1st to Crown 10am to 2pm.** We will have a super great time.

See you there!

Mark

We will need Volunteers to help set up, man the MASI table, take admission and otherwise just help out. Please see Mark Theby at the September 21st MASI General Meeting to help.

Admission to the Swap is \$5.00 for the Early Bird at 10:00 AM, which will allow you to get first dibs on that one fish you most desire before anyone else can buy it. At 11:00 AM admission becomes \$3.00. That \$2 gives an extra hour early to find that must have fish or aquatic related item. Kids 10 and under are free admission.

Vendor tables are always full of all kinds of fish related items, so if you're looking for something, this is the swap to find it at. If there is a particular Vendor or item you want to be there please make that contact and tell us and them of this opportunity. We want as much variety as we can get.

Help make this and future SWAPs a success by advertising to the public and all your aquatic friends whenever possible.

So on October 1st, be there for the 2017 MASI Swap.

If you still need a table or have any questions please **Contact Mark Theby:**

**Call or Text:
314-688-2899**

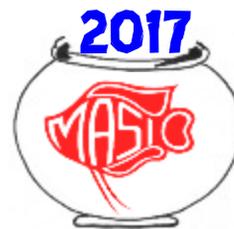
Or Email: to his attention at alicehill_1@yahoo.com

Swap Guidelines:

- 1. No parking lot or hallway sales,** the Crowne Plaza, is private property. Hotel security will be notified and you will be asked to leave. The club does not condone parking lot sales. **(Purchase a table and deliver any pre-Swap arranged sales from there.)**
- Table fees are \$30 or \$35 with power- \$25 for second table, \$20 for third table. A limited number of tables with power are available.
- Payment for tables needs to be made to MASI swap chair by Sept 21st. No tables for the swap will be held after this date, unless prior notice has been made and confirmed with swap chair.
- Payment for tables may be made out to MASI by check, or cash if handed directly to the SWAP Chairman. If other arrangements are needed contact Mark Theby to make them.
- Vendors need to bring their own change as MASI will not have change.
- There will be one free admission per table to help the vendor of that table, a total of up to 2 free helpers will be allowed. So three tables will only be allowed Vendor plus 2 helpers free, additional helpers pay admission.
- Admission -Volunteer MASI workers for the swap get in for free. If you wish to help with the Swap, please contact the swap chair to help ASAP.
- Sales are between vendors and customers, MASI has no say in outcome of sales and provides no warranty.
- Doors open to vendors at 9:00 AM for set up.
- Early Bird will begin at 10:00 AM
- Normal Open 11:00 AM to close at 3:00 PM



MASI SUPERBOWL



October 19 NO ENTRY FEES!!

Class List:

Prizes:

- **Best in Show, People's Choice, Best Junior**
\$20 gift certificate to Tropical World Pets
- **Cash awards all Classes:**
\$3 first, \$2 second, \$1 third
- **Junior Exhibitor (under age 16) any species**
Certificate and Cash awards: First, Second, Third



**Best in Show, People's Choice,
Best Junior Entry**

Rules:

- Turn in an entry form BEFORE placing your fish. Blank entry forms will be available.
- LABEL your bowls before placing in judging area (show chair will give you the correct labels once you turn in the entry form).
- One flat sided drum bowl or small tank (up to 10 gallons) per species is recommended -*multiples are allowed, however, the fish must fit the tank properly or can be disqualified by the judges.* No heaters, pumps or filters allowed. A lid or tank cover is preferred (Saran wrap and a rubber band works).
- Any fish displaying excessive stress will be pulled from the show.

Judging:

3 Judges will observe each fish. Judges' decision is final. Any judging paperwork is confidential and will be destroyed after the show. Judges do not need to defend their actions.

Entry form:

- Correct common name on entry form, as provided by entrant to the show chairman. Correct Latin name is better. (Correct Latin name may be from older books and commonly accepted nomenclature. No need to have the up-to-the second name. "*Corydoras barbatus*" is ok as is "*Scleromystax barbatus*")
- Junior entries must be indicated by a J on judging form and tank label. Juniors compete against regular entrants for placing. Junior is under age 16.

People's Choice:

There will be a voting box, paper and pens. Everyone should observe the entries and vote for their favorite.

Best in Show:

As determined by the judges

Best Junior:

Best single fish by a Junior entrant. Entry label on tank MUST have a "J" designation.

1. **Old World Cichlid**
2. **New World Cichlid**
3. **Rainbowfish**
4. **Killifish**
5. **Livebearer:** Fancy Finnage
6. **Livebearer:** Normal or Wild-type Finnage
7. **Egglayers:** Cyprinids: Barbs, Danios, Rasboras, Minnows, Goldfish; Characins: Tetras, Pencilfish, Piranhas, Pacu, Silver Dollars, etc.
8. **Egglayers:** Any other type
9. **Catfish:** Corydoras, Aspidoras, Brochis, Scleromystax and relatives
10. **Catfish:** All other

The Judges have the final decision if a fish has been properly placed in a category and under the correct name

Arrive Early!

UPON ARRIVAL AT SUPERBOWL

1. Entrant should arrive at Superbowl with the entry form correctly filled out and with fish.
2. There will be blank entry forms at the show site as well.
3. Show chairman looks at form and the fish. Chairman keeps form.
4. Show chairman gives accurate tank number labels to the entrant.
5. Entrant places tank number labels on the upper right corner of each tank.
6. Entrant places fish in judging area.





MASI AUCTION MESSAGE

Mike Hellweg

It will be November 19, 2017. I will have bags at the November general meeting.

We will need volunteers to help out starting at 9:00 am and running all day. We will be short a couple of our regular workers as they will be at the annual OCA Extravaganza. Unfortunately, the conflict in dates couldn't be avoided.

We will be going back to a tank raffle at this auction. If you would like to see a different size tank, please let me know. The folks at Tropical World Pets on Watson Road will be supplying the tank. Be sure to thank them for their support. The raffle is a major source of funding for the club, and helps to cover the cost of the room.

As always, the folks at the Crowne Plaza will be selling sandwiches, chips, nachos, and drinks right outside the door, so there is no need to head out somewhere else for lunch.

Mike

auktion@missouriaquariumsociety.com

The annual Fall Auction will come up fast.

MASI Fall Auction November 19, 2017!!



Available at the Venue!



Tank Raffle!

Verbal & silent auctions running throughout the day!

500-800 Lots of Aquarium FISH, Plants, Equipment, TANKS, Fish Food, Décor and all things Aquarium!!



CROWNE PLAZA

11228 Lone Eagle Dr, Bridgeton, MO
Off I-70 by Lambert Airport

Viewing 10:00 AM Auction Begins at 11:00 AM

Contact Info: auktion@missouriaquariumsociety.com

PET CONNECTION



Between The Hill and Botanical Garden

2212-2214 S. Vandeventer Ave.
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Pet Connection is the place to come, whether you're looking for a new pet or just need to take care of one you already own.

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Mon - Fri: 10 AM till 6 PM
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For fish products shop the **yellow and blue aisles.**



Photo log of Annual Killifish collected during a rainy season trip to Peru

By Jack Heller

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PERU IS A beautiful country situated in the western part of the South American continent. It is bordered to the west by the



Figure 1: General shaded relief map of Peru. The city of Puerto Maldonado, situated in the southeastern part of the country has been the center for the author's collecting activities. The Rio Madre de Dios and associated rivers in the region are part of the Amazon Basin drainage system. Map courtesy of the University of Texas Libraries, The University of Texas at Austin.

Pacific Ocean, to the north by Ecuador and Columbia, to the east by Brazil, to the south by Chile and by Bolivia to the southeast (Figure 1). I had previously traveled to Peru in July, 2013 to collect fish in the eastern lowland rainforest around Puerto Maldonado. The city of Puerto Maldonado, the center for my killifish collecting activities, is located in southeastern Peru in the area of the Amazon rainforest, around fifty-five kilometers from the Bolivian border at the confluence of the Tambopata and Madre de Dios rivers.

After that first trip I was thoroughly "hooked" and longed to go back, but during the rainy season when I would, hopefully, have a better chance to collect a wider variety of annual killifish. In late 2015 I heard Michael Barber, one of the new owners of Go Wild Peru, a nature tourism business located in Puerto Maldonado, speak about the flora and fauna, and in particular the fish, of the Madre de Dios region. Michael announced at that a rainy season collecting trip was being planned for February, 2016 and indicated that there were still openings. I signed on and after a significant change in participants the collecting trip during the rainy season was on!

Go Wild Peru's lodge is a comfortable two-bedroom home in Puerto Maldonado with a large aquarium room attached at the back where fish are held and packed for shipment. The room is well-equipped with holding tanks, workbenches and all the necessary equipment and supplies for housing, sorting and packing fish for shipment. These arrangements make it easier to keep fish for study or return to the origin of the collector.

On Sunday, February 14th, we made our first collecting excursion



General Collecting area around Puerto Maldonado and along the Rio Madre de Dios. Habitat ranges from the foothills of the Andes to the upper Amazonian rain forest.



Figure 2: The first collecting site, in the Saboluyuo area, near Puerto Maldonado. From this small seasonal pool, in a heavily forested area, we collected *Moema rubrocaudatus*. Photograph by Jack Heller © 2016

after first picking up our guide, Lance Peck. Lance is an experienced nature photographer and guide who has lived in Puerto Maldonado for a number of years with his wife Belinda. For our first collecting site, Lance chose an area called Saboluyuo, close to the home of our driver and assistant, Felix. It was a heavily forested area with a number of temporary pools.

In addition to the many fish we collected, I was able to photograph some beautiful flowers, ferns and mushrooms that are present in tremendous quantities in the rainforest during the rainy season.



Too soon, it seemed, it was time to say farewell to my friends Michael Barber, Lance Peck and Felix (Figure 13). I left Puerto Maldonado on Saturday, February 20th, and arrived home Sunday afternoon, exhausted but very pleased with the experience. As a bonus, when the fish arrived on my doorstep two weeks later, there was only one fatality out of 100 fish. I knew that even in a well maintained aquarium these annuals generally have a life span of no more than a year, so I set to work immediately acclimating them and setting them up for spawning. I used tall deli cups with a hole in the lid and filled them one-third full with boiled coir (or “coco peat”). Within one month I started seeing the first eggs.



Figure 9: *Moema quiii*, wild-caught male, from an area near Puerto Maldonado. The specimen was approximately 4 inches in total length. Photograph by Gary Lange © 2016.

Species Collected

Trip Log:

Friday Feb 12th- leave St Louis

Saturday - Lima to Puerto Maldonado

Sunday - Collecting excursion to Saboluyuo

Moema rubrocaudatus

Monday - Nearby on chakra (land) of Roberto, the Shaman

Moema rubrocaudatus

Tuesday - Collected in Malecon Quebrada

Moema kenwoodi, Rivulus christinae

Wednesday - Deep in the nearby Rainforest

Moema rubrocaudatus only

Thursday - Near Mazuco, foothills of the Andes

Rivulus christinae

Friday - Near Puerto Maldonado

Moema quiii, Moema rubrocaudatus

Roberto delivered *M quiii* & *M rubrocaudatus* #2

Saturday - Travel

Sunday Feb 21st - Home

While this rainy season collecting trip did not produce the large variety of species that we had caught on my first trip, I was very pleased with the few species I did bring back and I look forward to distributing them to other killifish hobbyists.

Moema quiii Huber 2003

Moema quiii Huber 2003, one of the annual killifish that I hoped to catch, was named as a dedication to Belinda Peck the wife of our guide. The species name is derived from



Figure 10: *Moema quiii*, wild-caught male, from an area near to Puerto Maldonado. Photograph by Gary Lange © 2016.



Figure 11: *Moema quiii*, wild-caught female, from an area near to Puerto Maldonado. Photograph by Gary Lange © 2016.



the Indian word “qui i i”, meaning “hummingbird”, a name given to Belinda by a friend who is a Shaman of the Ese eja Indian tribe of the Madre de Dios region.

On the first day, however, we did not have that luxury since the stream was flooded and would have been difficult to collect from. I was disappointed not to find *M. quiii*, which was a species I was really hoping to collect, and this proved difficult most of the trip.

It was not till Friday, we finally succeeded in finding *M. quiii* in an area close to Puerto Maldonado (Figures 9–11). We were again catching *M. rubrocaudatus* when I pulled up my net and found a female larger than any *M. rubrocaudatus* female I had previously caught. Lance immediately identified it as *M. quiii*. Lance, Felix and I then set off on a quest to find more specimens of this species.

I asked why they were in the same temporary pools as *M. rubrocaudatus* and Lance said that was not unusual since *M. quiii* is a predator and, unlike other *Moema* species, does share temporary pools with other annual species. He said that he has seen *M. quiii* in great quantities toward the end of the rainy season, but that they could also be very difficult to find. We caught only three more specimens of this fish after three hours of fishing but we were lucky in that they were two males and a second female, and they were well matched in size.

I knew from our previous trip that *M. quiii* was present on Roberto’s chakra near Puerto Maldonado. On the second day of my trip, when we visited Roberto’s chakra, we had left a net with him so that he might find *M. quiii* for us, in the event that we were unsuccessful. While we were out collecting on Friday, he also came by the lodge and dropped

off a large male *M. quiii*, much larger than the four that we had caught.

In my fishroom, as expected, the *M. quiii* were far less productive than the other two annuals but I have managed to harvest several spawnings from both pairs before they died.

I recently re-wet a bag of *M. quiii* eggs and hatched several more large, healthy fry. It is too early to tell at this point how successful I will be in raising the *M. quiii* to adulthood. They have not sexed out yet, but are growing fast and are already very aggressive. I am hopeful that by the end of May, when we hold the 2017 AKA National Convention, I will be able to bring multiple pairs of *M. quiii* as well as *M. rubrocaudatus* and *M. Kenwoodi*.

***Moema rubrocaudatus* (Seegers 1984)**

On Sunday, February 14th we concentrated on the temporary pools, and here I caught my first annual

species, *Moema rubrocaudatus* (Seegers 1984) (Figures 2–4). This is an attractive annual killifish that shows quite a lot of inter-population variation. The fish from this site featured long, pointed extensions on the upper and lower parts of the caudal fin and a distinctive pattern on the dorsal, anal and caudal fins.

The pools were shallow and mostly small, and there were a few areas where they had recently dried up with only dried duckweed remaining to show where the pool had been. We found the fish among leaf litter close to the edge of the pools. In one pool, we caught many small juvenile *M. rubrocaudatus*, but no adults. This indicated that the temporary pool where we caught these fish had only recently been flooded.

Temporary pools in the rainforest can receive water and then dry out multiple times during the rainy season. The fact that some annual eggs delay hatching until a subsequent flooding of the pond is an adaptation that ensures



Figure 4: *Moema rubrocaudatus*, wild-caught male, from a temporary pool in the rainforest as shown in Figure 2, in the Saboluyua area, near Puerto Maldonado. Photograph by Gary Lange © 2016.



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Figure 5: *Moema* species, wild-caught male, from temporary pools in the rainforest in the Saboluyuo area, near Puerto Maldonado. Photograph by Gary Lange © 2016.

the survival of the species. Should the first-hatched fry succumb to drying of the habitat before reaching adulthood, there will still be eggs remaining in the substrate that can hatch with subsequent flooding.

I noted that we found only a single species of killifish in each temporary pool. In addition to the known *M. rubrocaudatus* which we collected initially, we also caught specimens of another annual fish from other pools in the same general area. These were most likely a *Moema* species, but they differed from the *M. rubrocaudatus* in color pattern and fin structure (Figure 5), having a rounded caudal fin with no extensions. After several hours of fishing we returned to the lodge to place the fish in holding tanks. This first day of fishing was quite successful.

On Wednesday we traveled to two additional areas, but after several hours of fishing deep in the rainforest, we only managed to find more *M. rubrocaudatus* with the same fin structure and body pattern as those we had collected before. The only other creatures in these pools were aquatic insects and small crabs.

On Friday, Roberto the Shaman also dropped off several *M. Rubrocaudatus*.

Among this batch was a single male specimen displaying a beautiful blue body color and, in general, a somewhat different color pattern to the *M. rubrocaudatus* that we were already familiar with from the area. Unfortunately, Roberto

had provided no location information and it was impossible to determine if any of the females he had brought were a match for this particular male specimen. Therefore, I kept the blue male for photographic purposes only (Figure 12).



Figure 12: *Moema* species, wild-caught male, as collected by "Roberto" on his privately-owned section of rainforest. This specimen shows a somewhat different color pattern to the *Moema rubrocaudatus* that we collected in the area. Photograph by Gary Lange © 2016.



Figure 6: *Moema kenwoodi*, wild-caught male, from the Malecon Quebrada area. Photograph by Gary Lange © 2016.

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Moema kenwoodi Valdesalici 2015

Also on Tuesday near Malecon Quebrada, we collected *Moema kenwoodi* Valdesalici 2015, a different and unusual *Moema* species that had only recently been described (Figures 6–7). We were fortunate to find several pairs of this species, and they adapted very well to the holding tanks and to my tanks back home.



Figure 7: *Moema kenwoodi*, wild-caught male, from the Malecon Quebrada area, this specimen showing a more definitely spotted anal fin. Photograph by Gary Lange © 2016.

Rivulus christinae Huber 1992

We found our first *Rivulus* not far from Malecon Quebrada on Tuesday. This was *Rivulus christinae* Huber



Figure 8: *Rivulus christinae*, wild-caught male, from the Mazuco area in the foothills of the Andes, west of Puerto Maldonado. Photograph by Gary Lange © 2016.

1992 which is a medium-sized *Rivulus* species with a very attractive color pattern. It was found in pools that, again, hosted only the single species. Lance told me that the pools in which we found this species were generally not temporary pools although they did shrink during the dry season. He said that he could generally rely on finding *R. christinae* in these particular pools.

We also had an interesting experience on Thursday. We left the Madre de Dios Region and drove for about two and a half hours in a westerly direction on the Inter Oceanic Highway to the foothills of the Andes. When we arrived at our destination, Mazuco, we could see the Andes in the distance, and there was a beautiful view from the collecting site, which was high up in the foothills overlooking a deep valley. The *R. christinae* we collected in this location were some of the most intensely colored I have seen, and their colors have not diminished in my tanks (Figure 8).

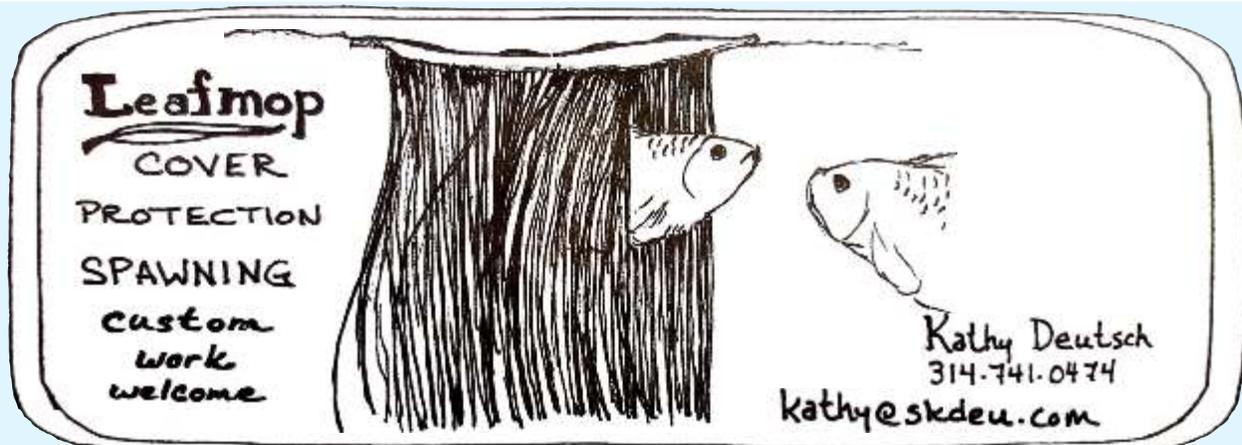
As of this writing, I have had successful hatches of *M. rubrocaudatus*, *M. kenwoodi* and *M. quiii*, and the juveniles are growing rapidly. I am hopeful that by the end of May, when we hold the 2017 AKA National Convention, I will be able to bring multiple pairs of *M. quiii* as well as *M. rubrocaudatus* and *M. kenwoodi*.

References

- Huber, J. H. 1992. Review of *Rivulus*, ecobiogeography – relationships, the most widespread Neotropical cyprinodont genus. *Cybiurn, Société Française d'Ichthyologie*, Paris, France: 147.
- Huber, J.H. 2003. A new species of annual killifish from southeastern Peru, with a uniquely barred color pattern, *Moema quiii* n.sp. *Freshwater and Marine Aquarium* 26 (12): 10–19, figures.
- Seegers, L. 1983. *Pterolebias wischmanni* nov. spec. aus dem Ucajali-Einzug in Peru (Pisces: Atheriniformes: Rivulinae) *Deutsche Killifisch Gemeinschaft Journal* 15 (5): 67–74.
- Seegers, L. 1984. Ein neuer Rivuline aus Peru: *Pterolebias rubrocaudatus* (Pisces: Atheriniformes: Cyprinodontidae). *Bonner Zoologische Beiträge* 35 (1/3): 243–250.
- Valdesalici, S. 2015. *Moema kenwoodi*: a new annual killifish from the Madre de Dios river drainage, Peruvian Amazon (Teleostei: Rivulidae). *Journal of the American Killifish Association* 48 (3): 66–72.



Figure 13: From left to right: Lance Peck (guide), the author, Felix Mamani (driver and assistant) and Michael Barber (co-owner of "Go Wild Peru").



One man's trash... ...is another man's treasure. An Aquabid How-To

By Rick Renfro

TWO WEEKS AGO I was clearing out some of the hornwort that was taking over my tanks. By "some" I mean that I ended up with half a 5 gallon bucket of plants. I also gathered over one hundred of the Red Ramshorn Snails that had grown from the initial 10 specimens that I purchased on AquaBid just three months ago. In the trash it all went. Then I realized a couple days later that the discarded plants probably also contained some of the Mystery Snails I had purchased from a MASI auction. Just great!

I acted without thinking- one of my true talents. If you really think about this hobby, we are taking on the responsibility for the lives of many living creatures, large and small, who depend on each of us when we decide to create the living ecosystems in our aquariums.

Feedback on a Facebook video post had caused me to remove excess snails in my tank because someone I have never met nor talked with said I had too many. I know that with all the small food I put in my tanks to feed the guppy fry, the snails are an important part of the success of my tanks, and the only reason there are a lot of snails is because there is enough excess food to support their population.

This turned into an embarrassing learning moment for me. I realized that any production in this hobby is of value to someone. It is our responsibility to the

animals in our care to do the work to give them a healthy environment, and we owe it to other hobbyists to share the excess our aquariums produce. I really like guppies and, since they reproduce like a virus in a perfect petri-dish for me, I feel it is my responsibility to distribute excess guppies instead of simply culling them as it is called. The same for the snails that support the health of my tanks. I guess the same could be said for the multiple feet of hornwort that grow each week, and the thousands of little duckweed plants that come into being minute by minute in my outdoor tub, however, this stuff grows so quickly that I simply don't have the equipment to keep all of it to sell, but I am going to try to sell even the duckweed.



I just shipped my first Ramshorn Snails today sold on AquaBid, and I don't mind telling you that this made me kind of nervous. MASI meetings hold auctions for members to sell their fish and plants, and we can also sell at the quarterly auctions. This article may take some of the mystery out of selling on AquaBid, with the goal of at least covering costs or even making a profit, if there is such a thing in this hobby. My product line will be snails, hornwort, duckweed, and banana worms, all of which are not glamorous. ... all considered by some as trash.

SCREENSHOT OF FRONT PAGE AQUABID.COM:

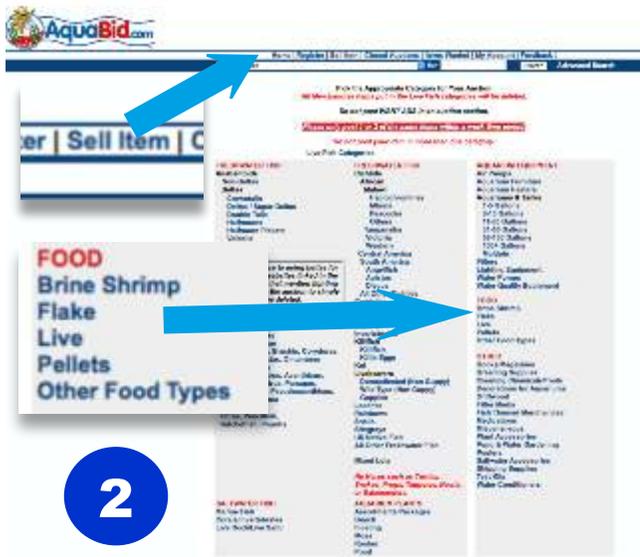


Selling and shipping live plants and animals may be something many of us view as overwhelming and I have not seen a step by step presentation of this process. This article will describe how to create an ad on AquaBid to sell Banana Worms. It really is not too difficult, and it actually is pretty exciting when a buyer contacts you to buy something your hobby has produced.

Before you begin: Registering with AquaBid.com and PayPal.com would be the first step. Another thing that I found useful is an Amazon credit card. They gave me a \$50.00 credit when I signed up for a card- which is why I got one- but you get Amazon credit for everything you buy. I have purchased a lot of equipment and supplies for this hobby through them and I also use the Amazon credit card for PayPal which makes it safer for doing business with strangers on AquaBid, as well as with another individuals and online businesses.

Once registered for an AquaBid user account, I suggest spending time looking at all the auctions under the various categories. You can find almost anything





2

money on AquaBid since the MASI auctions need your support. Think MASI for buying fish and supplies, think AquaBid for selling fish you don't sell at the auctions. I am sort of joking here, but our aquarium society depends on our support through these auctions. What I am wanting to stress here is that if you are interested in income from the hobby, and want to learn about how to sell and ship live plants and animals that you produce, AquaBid is one of the avenues available to any of us.

I have included images of the pages you access to start an auction, but it may be easier if you go online and bring up AquaBid.com to view the various pages.

You start at the front page of AquaBid.com: 1

To create an ad for an auction, select the "Sell Item" tab across the top of the front page and this page starts your ad by requiring you to select the category for your auction. For this example, I am going to create an ad for Banana Worms, so I select the category

under "Food", and select "Live." 2



3

4

The next page is where you select whether you want to add a photograph or not, and where the photograph will be accessed, such as a URL or from a folder on your computer. I have used the section "Upload Your Picture" and selected the button "Choose Your File" to access my folders containing the file. Initially one of the .jpg files was too large for this format, but AquaBid has a pop-up when this happens to a free sizing program that will reduce the size of your image. 3

After you have selected the image your folder window closes and the name of the image is shown next to the button "Choose Your File" in the "Upload Your Picture" section.

Select "Continue" in the section below your image/file name. This brings up a page to confirm that your image upload is successful and will display the image that will appear in the auction ad. To advance to the next page select "HERE" in the sentence

above the image, "Click HERE to continue." 4



5

The next page requires your complete attention. This is where you detail your auction. A warning! When you post an auction you agree that this is a contract between you and the highest bidder as long as the bid price meets or exceeds your reserve price, that is the minimum price you are obligated to accept. Pay close attention to every section on this page, and be sure to proof read the ad that will appear next before you publish the ad. You can edit the auction at any time up to the point where a bid is placed on it. After that only limited edits allowed.

5 As I stressed earlier, this is the page to proof read a few times. Here is why: On my second auction for Ramshorn Snails, I missed the part about where I will ship, and the default selection is "Will Ship Internationally." Within an hour of posting, I had a bid for my asking price. Great right? Well, the buyer was located in Canada and there are laws prohibiting the exportation of snails from the United States to Canada without special licenses and permits from each country.

Thankfully the buyer was very understanding and let me off the hook without crucifying me in my feedback, or worse, reporting

there for this hobby, but please don't spend all your



me to AquaBid for breach of contract. This oversight could have caused a lot of problems. Similar to the ban on Columbian Ramshorn Snails in the United States, it is difficult to acquire common Ramshorn Snails in Canada. If I would have shipped to this buyer without researching the laws governing international shipments of snails, I could have been prosecuted.

One thing to definitely check before you post an auction is the cost for shipping your package, and the cost of shipping materials. I keep any box that I think will work for shipping and also save any shipping materials and flat styrofoam that can be used for insulation. Shipping costs for USPS, UPS, and FED-EX are available on their respective websites. If you use Priority Mail, the USPS will give you boxes free, you just have to sign up for an account and order the boxes you need.

Description written for the ad discussed here:

“ This is a complete kit for starting your first culture of BANANA WORMS! No charge for shipping, live arrival guarantee. Seller will replace worms only if culture is not viable after 5 days. This kit includes a container that already has the top cut and includes filter material to allow air into the culture container but keeps out insects, growth medium (flaked potatoes), a portion of yeast, and enough worms to start your culture. All you do is add enough tap water to the flaked potatoes to resemble mash potatoes that you would eat, flatten the mix with a spoon, gently spread the worms over the top of the potatoes, then sprinkle the yeast evenly on the mixture. Snap the lid on and wait 3 to 5 days for the worms to start climbing up the sides of the container. You can use your finger, or a cotton swab, to collect the worms from the sides to feed to your fish, or fry. After the culture is established, you can make more cultures, simply set up a new container the same as the one you receive, then scoop a half dollar sized area from the top of the established culture and spread that onto the new medium. Cultures last 4-6 weeks, when they stop producing and smell sour, it's time to make a new culture. You should never have to buy another culture again if you keep cycling your cultures, I keep three going at a time, spaced two weeks apart.”

After you have proof read this page multiple times, then select the “Preview” button at the bottom of the page. Now, proof read this page again multiple times. If this is just the way you want it, select the “POST ITEM” button at the bottom of the page. If changes are

needed, select the back button on the browser. **6**

I am writing this article in July, so the posting for this add may not be running when this article is published in the Darter, but you can search for me under the seller name “stickmann” to see if I have any open auctions, or I may use this one multiple times.

The screen shots are not very large so one last thing I want to suggest is to spend some time and thought on the item description. Let it express your thoughts and ideas and your personality- after all you are reaching out to other hobbyists that are just as passionate about their hobby as you are.

Of course, be honest in your description, and if you are able, give the buyer more than they expect both in product and customer service! Consider that your feedback record may be more important than the sale, so keep your promises and keep your promises realistic.



Rick's comments at time of publication:

I just shipped my third box of snails for sales on AquaBid. They have gone to Missouri, Wisconsin, and Washington State. I ship these in insulated boxes using Priority Mail so the profit margin is a few dollars per sale, and so far have a 100% satisfied rating on feedback. I'm still not keeping up with the birthrate of my snails, but including the auction, I have sold approximately 200 snails.

I include as a bonus a starter culture of either micro worms or banana worms with the snails, I actually send two cultures, and this seems to be a great motivator for sales.



Aquatic Experience

Schaumburg Convention Ctr.

November 3-5, 2017

By Phil Nixon

AQUATIC EXPERIENCE WILL be held this fall at the Schaumburg Convention Center west of Chicago, IL. The event will be on Friday, November 3 from 11 a.m. to 6 p.m., Saturday, November 4 from 10 a.m. to 6 p.m., and Sunday, November 5 from 10 a.m. to 4 p.m. More information is available at their website at aquaticexperience.org.

I have attended this event repeatedly since its start several years ago. It has become a very large event with impressive displays from dealers in

Dr. Phil Nixon
Extension Entomologist (Recently) Retired - University of Illinois -
Department of Crop Sciences - Urbana, IL



Dr. Nixon is a keeper of many exotic and especially native fish. Phil is a long term member of the North American Native Fishes Association (NANFA) and is their auctioneer at their annual Conferences and Collecting Trips. He is a frequent guest speaker on several fish keeping topics for many Aquarium Societies across the Mid-West. Until he assumed the position of Treasurer recently he was President of the Champaign Area Fish Exchange (CAFE). He and his wife, Carie, keep and breed fish outdoors in the summer in several large livestock tanks and move them back indoors for overwintering.

tropical fish and invertebrates, plants, and equipment for both freshwater and saltwater. There are also free sea lion shows on the show floor.

Perhaps the most impressive to me last year were the competitive shows for aquarium plant set-ups, shrimp, and cichlids. Contests this coming year include those by the American Cichlid Association, Aquatic Gardeners Association, International Shrimp Contest USA, and Kid's Aquarium Contest.

There will be a variety of booths by manufacturers of equipment, fish breeders, and plant growers. Currently, there are 124 exhibitors that have registered with booth registration still being open. Last year, I was very impressed with several booths selling tremendous varieties of aquarium fish, shrimp, and plants. Many of which I had not

seen before. Their prices were very reasonable.

I purchased several types of plants, particularly some for a palidarium we had recently set up. The sellers were very helpful with information on mature size and proper growing conditions. The plants did well in my tanks.

There were numerous manufacturers of light systems with



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booths showing their equipment allowing one to compare the appearance, light color, and light intensity of various units. I was impressed with others displaying new types of filters, different materials for tank landscaping, and medications. Some booths were selling their products, while others directed me to retail booths that did sell them.

There were several fish food booths with many giving away free samples of their products. That provides a great opportunity to try out various foods to see how you and the fish like them without spending a lot of money on food you end up not using.

Numerous organization and club booths are present as well. The North American Native Fishes Association will be having a booth again this year where I will be working. Various other national aquarium groups also have booths as well as local clubs.

This year's educational seminars on hobbyist and retail topics will include presentations by Hans-George Evers, Karen Randall, Heiko Bleher, Lynn Switanowski, Bob Fenner, Patrick Tawill, Mike Paletta, Chad Callan, and Gary Lange.

New this year is the Friday Fish Health Management Course from 8 a.m. to 5:15 p.m. at an additional fee of \$97. It will cover the basic principles of freshwater and marine fish management. Topics include maintenance protocols, nutrition, chemotherapeutic approaches, and anatomy. Speakers include Timothy Miller-Morgan, George Blasiola, Patrick Donston, and Gregory Lewbart.

The entry fee to the show floor is lower than that to attend both the talks and the show floor, allowing one to have various cost options.

This is a unique opportunity that is not that far away.

It will be worth the trip.



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Some Fish Tank Basics for People who Have Never had One

...but their Loved One Wants One for a Gift

—
by Kathy Deutsch

TIS THE SEASON when someone goes to the store to buy dog food and comes back wide-eyed.

They had fish tanks!

And cool fish! And plants!
And all these lights!

Fish Tank Fever is real—that someone could be any age.

The others in the house, the *unafflicted* ones, are baffled by the excitement. Fish tanks LOOK like a lot of work - and all the household needs is another thing to deal with.

Let's figure out how to get that Special Someone a tank full of fish. And let's figure out how to make it easier for the Fish Tank Care Person.

FIRST CONSIDER

Just because Fish cannot speak does not mean they don't feel things. Fish are living beings. They are pets just like the dog or cat. Their care is important- maybe more important than with other pets. They cannot get out of the glass box when their water is dirty. They cannot tell you when they

are hungry. You can't give them to charity when you get tired of them. Everyone in the family needs to understand the fish will need routine care. ...and the humans are responsible for that care!

WHAT YOU NEED

A tank. If it holds more water, that is more room for the fish to move around. A larger tank also does not go foul as quickly. A 10 gallon tank is the absolute minimum. It can hold about 6-8 fish that stay one inch or so. Bigger fish means a bigger tank. Personally, I like a 29 gallon tank.

A stand for the tank. Make sure it is strong enough to hold a tank full of water without any wobble and can handle getting wet. It costs, but a real fish tank stand (not some random shelving) saves a lot of worry and they often have places to store other fish tank stuff.

A filter. Make it easy on yourself and get a filter that hangs on the back of the tank. Buy extra filter cartridges that fit the filter. You will be able to rinse and reuse these several times.



One or two gallon buckets and a way to scoop water into them. Mark these so they are only used for the fish tank.

Towels. Mark these so they are only used for fish tanks.

A heater. If you want fish that need heated water. Some do, some don't.

An in-tank thermometer.

Beneficial bacteria growth slows down in colder water. It is good to know what the usual water temp is.

A fish net, and a place to put a wet net (maybe another bucket?) At some time you will want to catch or remove a fish.

Some gravel for the tank bottom. Gravel will eventually hold and nurture good bacteria that eats fish waste. However, too thick a layer of gravel may cause a build up of bad bacteria and the tank will foul. A layer of ¼ inch is a good start.

Some fish hiding places.

Sometimes we all want to hide and relax. So do fish. They like to sleep in quiet spots. They will use anything from (clean) terra cotta flower pots to those goofy fish tank decorations. They appreciate plastic plants, especially if they can hide behind them. Be sure to rinse everything in hot clean water before placing in tank.

A fish tank top. Fish jump. Once. A lighted fish tank top is nice but may be optional if you have other light sources nearby. If you choose to use one, LED lights cost more but are easier to maintain and cheaper to run for the same amount of light.

Water conditioner. Read the label to be sure it neutralizes chlorine and chloramines.

Fish food. More on that later.

WHERE TO PUT THE TANK

Place the tank and stand where the floor can support it safely. Water weighs 8 lb per gallon and substrate is heavier, plus the weight of the tank and stand. A 10 gallon tank could weigh as much as 100 pounds.

Place the tank close to an electrical supply (for the filter, lights, and maybe a heater)

Place the tank over a floor that can tolerate getting wet.

Place the tank in an area with medium light. Too close to a window and algae will grow on inside the glass. This won't hurt the fish, and some fish eat the algae. But you might have to clean the glass more often if you want a sparkling clean look.





FINALLY, WATER

Water- Most water comes out of the tap having been treated with added chemicals like chlorine. These chemicals will kill fish and the helpful bacteria that eats the fish waste. Treat new water with conditioner and let it stand until the chemicals are neutralized by the conditioner. Have a temporary place where you can spread out a towel and have a couple buckets of treated water, waiting for the next water change.

Fish need clean water. They will need water changes, meaning removing a portion of the water and replacing it on a regular basis, perhaps weekly. The filter will also need cleaning about once a month. The glass might need wiping to clear algae build up. The gravel might need vacuuming with a gravel vac.

FISH BASICS-WHAT THEY NEED (HOUSING)

Fish live in water. They eat in this water and they eliminate wastes in this water. Their water can get foul very quickly unless there is a water filter that cleans it. Other fish and aquatic animals can help by consuming excess food. Plants and resident beneficial bacteria also help remove organic wastes by consuming the wastes and converting them into harmless products.

Fish need clean water, a filter, and some places in the tank where beneficial bacteria can grow. They need hiding and sleeping places as well.

FISH BASICS TO CONSIDER

Consider the size the fish will grow up to be. Most pet stores sell baby fish that will grow. Do some research or ask the clerk how large the fish will get before you buy it. If you

buy a fish that gets much over 2 inches, you may need a bigger tank to house it, perhaps a 20 or 29 gallon tank.

Fish may quarrel. In order to reduce this, keep species that generally co-exist peacefully. Give them room and give them some hiding places.

Fish live on certain levels of the tank. Some like the bottom, some the top. If you have one species of fish on the bottom and one near the top, you may have a more interesting tank.

In general, fish like others of their species. Give them friends. Usually, a couple fish that can school are happier and more active than a single fish of a species.

SOME TIPS BEFORE YOU BUY FISH

1. **Fill the tank** in a bathtub and let it sit for 24 hours to check for leaks. Even new tanks can leak.
2. **Rinse everything** in hot water (no soap) before placing it in the tank
3. **Put the tank on the stand.** Be sure there is no wobble. Be sure you like where the tank and stand are. Because moving an empty fish tank is easier than moving a full one.
4. **Fill the tank half way with treated water,** then put in the decorations, gravel, thermometer. Fill tank the rest of the way (leave 2 to 3 inches at the top) and add the filter and heater (if you go that route).
5. **Plug in filter** and other electrics. Let the tank run 24 hours.
6. **Go to the fish store and JUST LOOK** at the fish. Notice if they seem peppy and zippy. See if they are eating food. If they seem to be scratching themselves on rocks, they are sick. If they drift around the tanks, looking sick, they are. Healthy fish are lively. Their eyes are clear, they have no blood spots, white spots, or torn fins.

WHAT FISH TO GET

Top 2/3 of tank: (pick one species, about 4 to 6 fish depending on tank size)

Examples: Danios, tetras, guppies, swordtails, mollies, platys
Consider some plastic plants that are as tall as the tank so these fish have somewhere to hide.

Bottom of tank:

Examples: corydoras catfish 3 to 5, 1-2 loaches, etc.

Consider some bottom of tank decorations, like flower pots, so they can hide and rest.



FISH FOOD

I suggest flake foods for the middle level to top swimmers and sinking pellets for the bottom dwellers.

Feed a variety and mix it up from day to day.

Unless you really get into the hobby and try to breed a lot of fish prepared and dry foods is probably sufficient.

Many fish, especially some of the catfish,



ADDING/ACCLIMATING FISH

This is a tricky part. Fish should be quarantined for 2 weeks before adding to a tank that already has fish in it. Some illnesses are undetectable and may infect other because they were ill before you got them. You could do absolutely everything correctly and still lose the fish. Be safe and keep them separate for a time just to observe them.

THE GOLDFISH PROBLEM

Goldfish are cute and flashy and often cheap.

However, they eat different foods and generate a lot more waste than most of the tropical fish sold in the pet stores. They are cold water fish and do not need

heat. Some are aggressive and can eat other fish. Some are slow and are eaten BY other fish.

Goldfish are not a temporary choice. They can live over 20 years if you take good care of them, needing increasingly bigger tanks.

Goldfish do have a personality. They will know you and like you. They will eat food from your fingers and interact with you. Sometimes they will watch TV.

DO NOT mix two types. If you want goldfish, decide if you want the streamlined-looking comets or the round body orandas or ranchus but . Eventually the comets will eat the round body fish. DO NOT put any other species in the tank with the goldfish. I have seen seemingly sweet orandas eat corydoras and vice versa.

Getting 3 of the same type to share a tank is recommended. Be aware that goggle eyed fish will have their eyes eaten by any other fish except other goggle eyes.

Be sure to get goldfish food. They like a little twice a day.

Do not panic if sometimes the round body ones swim upside down. They do that.

See? I told you it was a goldfish problem.



Fish may need to get used to your water because the water may be significantly different at the fish store. Put the fish and their bag water in a container big enough to hold the fish, the water, and (eventually) added water from the tank. Immediately add a cup of water from the new tank. In 15 minutes, add another cup. I recommend doing this for 3 hours. Then slowly pour the water and the fish into the tank. If there is a light, turn it off. Give the fish a day to adjust to a new world and feed them a little that day.

FINALLY, THE TANK IS DONE OR IS IT?

water changes and the bacteria bed

The fish are making waste, which is falling to the tank floor, into the gravel. Eventually, much of the waste will be converted into harmless by-products by bacteria that use it as a food source but it takes time to grow the bacteria. Nitrogen from the food is most involved in this process, to learn more search for the "[Nitrogen Cycle in Aquariums](#)" or look for a future article here.

The bacteria needed are naturally occurring but you can buy bacteria to "seed" the substrate bed or you can change 20% of the water weekly, and allow the bacteria to slowly grow by itself over about a 6 week period.

I have done both and the easiest thing for me was to have a tank with very few fish in it at the start then do partial water changes regularly. You can get a water test kit and monitor the tank water.

Remember the filter and the filter cartridges? They collect fish waste and grow good bacteria on the fabric side of the cartridge. Once a month rinse the cartridge in cool water (too hot or too cold kills the bacteria).

I KNOW, THIS DOES NOT SEEM EASY.

Yes, it does sound complicated. Anything worth doing is worth doing well. Once you get the towels and the buckets, and all the rest, you will have the equipment to take care of a fish tank for many years.

Once you get the hang of cleaning filters, doing water changes, wiping down the tank, it gets easier. It really gets easy when the person who wanted the tank does the work. Rotating the

tank chores so no one person is stuck with all the care may also help develop a sense of responsibility in others.

These are living beings and they take care, just like any other pet.

The goal is healthy fish and a vibrant fish tank everyone in the house can enjoy.



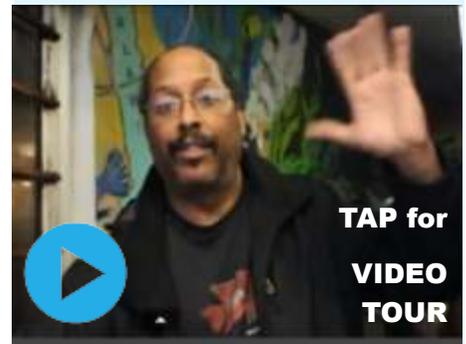
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Minifins

-

Danio erythromicron

The Emerald Dwarf Danio

-

Mike Hellweg, CFN
(Certifiable Fish Nut)

THE BEAUTIFUL EMERALD dwarf Danio is a tiny fish. Barely an inch long when full grown, it might go totally unnoticed in a busy community tank. For almost 100 years, it was placed in the genus *Microrasbora*, but recently it was discovered that they are actually more closely related to Danios than to Rasboras. Though the species was described in 1918, it didn't make it into the tanks of hobbyists until the late

1980s. Even today, it is not a common fish.

The Dwarf Emerald Danio has gone through several name changes in the past few years - first moving to the recently created genus *Celestichthys*, and then moving to *Danio* a couple years ago. Some authors hint that might not be the last change. In addition, some wholesalers have been giving it the generic name of "*Microdanio*" though there is no validity to this name. It appears to be closely related to the CPD, *Danio margaritatus*, and the northern Burmese Glowlight *Danios D. choprae*, *D. flagrans* and the newly described *Danio htamanthinus*.

It is found in Lake Inle which is located in western Shan State, the easternmost State of Burma, not far from the Chinese border. At 3000 feet above sea level, Lake Inle is a cool, hard water lake with water parameters not unlike Lake Malawi in Africa.

It is an excellent candidate for the nano tank. Its beauty and interesting behavior make it a fish to look for and to work with once you get lucky enough to find it. It is a pinkish-orange fish with up to 15 emerald green bars along its side. It has a black spot at the base of the caudal fin. Males have reddish orange in their fins, while



Adult pair, Male on Left



© Peter Macguire

females have clear fins and are a bit less colorful. It has a high body that gives it a somewhat chunky appearance. In happy, well cared-for fish, the emerald green shimmers and pops against the bright colored fins. The males spar constantly with one another and dance with the females, making a healthy group in a well-planted species tank not something you'll soon forget!

Providing *D. erythromicron* with a suitable habitat is pretty easy. A well planted 10-gallon tank makes a perfect home for a small school of a dozen or so Emerald Dwarf Danios. You might be tempted to add other small fish, but try to avoid the temptation. These little guys will do very well by themselves, and might even spawn in this tank. With other fish in the tank, they will likely spend much of their time hiding and chances are low that you will ever witness spawning, or, if they do spawn, you'll probably never see any fry.





Lake Inle is a High Mountain Lake

© Robin Thom



It also has abundant vegetation

© Robin Thom

Lake Inle

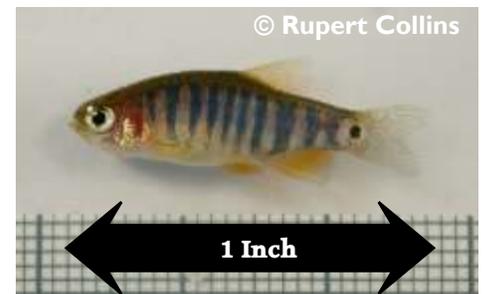
Water parameters are key to keeping this beautiful nano fish happy. Since they were originally called Rasboras (and often still are called Emerald Rasboras) and since they come from SE Asia, the first thing that might come to mind is that they need soft, acid water. That is the exact opposite of what they actually need! They do best at a moderately high pH of 7.2 - 7.4, with moderately hard water (150 ppm to 300 ppm total hardness) - again, think Lake Malawi. It's a good idea to add some aragonite sand or crushed coral to the gravel or in a box filter to maintain these water parameters. In addition, you won't need to use a heater. Coming from over a half mile above sea level, they prefer water that is on the cooler

side - 72 to 74 degrees Fahrenheit. Water changes are important. They prefer water that is low in organics, so regular water changes will keep the nitrogenous wastes low. They appreciate a heavily planted tank, and will actually spend more time in the open if they know they have plenty of places to hide if needed.

Newly hatched brine shrimp are a perfect food, along with Grindal worms or other small live foods. They will also eat some prepared foods like Hikari Micro Pellets. Freeze dried Cyclops and tiny frozen foods also work well. I've even watched individuals successfully tackling live blackworms!

Provided with cool, hard, alkaline water with a basic pH, once

they reach maturity and providing that you have at least one pair, they will spawn freely. They will lay several eggs each day. They also enjoy a snack of their own eggs or fry. In a heavily planted tank a few will be missed and grow large enough that they'll be safe. Once the fry reach about a quarter inch



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the adults and larger siblings ignore them. If you want a larger spawn, it is best to set up a separate spawning tank and move the adults to that tank, then remove them after spawning.

A large plastic critter tank or 2-1/2 to 5-1/2 gallon tank is perfect for a couple of mature, well-conditioned pairs. To condition them, separate the sexes for a week or so and feed them heavily on live foods like Grindal worms, chopped blackworms, and daphnia. Water parameters in the breeding and conditioning tanks should be about the same as the main tank so you don't stress the fish. Always add the female first, and then add the male right before turning the tank and room lights off for the evening. They will usually spawn the next morning. Aeration isn't necessary, nor is a heater. Do cover the tank as the spawning chase can become intense and it isn't unusual for an overly harassed female to jump out of the tank.

Add a pile of spawning mops made of acrylic yarn or a big clump of Java Moss lying on the bottom of the tank and check these for eggs each day. The eggs are clear and about 1mm in size. Once you see eggs in the mop or on the bottom of the tank, remove the



adults. Add a small airstone bubbling very slowly to the hatching tank, but avoid a filter for at least the first couple of weeks.

The fry will hatch in three days at a temperature of 72 degrees Fahrenheit. They will look like tiny slivers of glass lying on the bottom, in the plants and on the sides of the tank. Don't get impatient and start feeding them too soon. Wait until they are swimming in the tank to start adding food. I start them out with Infusoria for the first several days, mixed with a very fine powdered food like Sera Micron. Add this to the tank daily. You can tell the fry are eating because they will have bulging bellies. Add a couple of snails or young shrimp to the tank to help clean up uneaten food. Perform SMALL daily water changes, using airline tubing to siphon the bottom of the tank. Use water from the adult's tank to the water

removed from the fry tank for the first several weeks.

When they are about a week old you can start adding live newly hatched brine shrimp at feeding time along with the infusoria and/or powdered food. After a couple days of feeding this mix you will be able to see that all of the babies are eating baby brine by their



swollen orange bellies. Continue to give them small water changes daily. Once they reach about three-eighths of an

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inch it will be time to add a mature sponge filter to the tank. .

Like many nano fish, it is getting easier to find these colorful and interesting little Danios. Even if they are a pale, shy little fish in the dealer's tank, give them a beautiful planted tank and they will shine.

- Maps from Wikipedia
- Photos from Seriously Fish and © as indicated

Similar Species



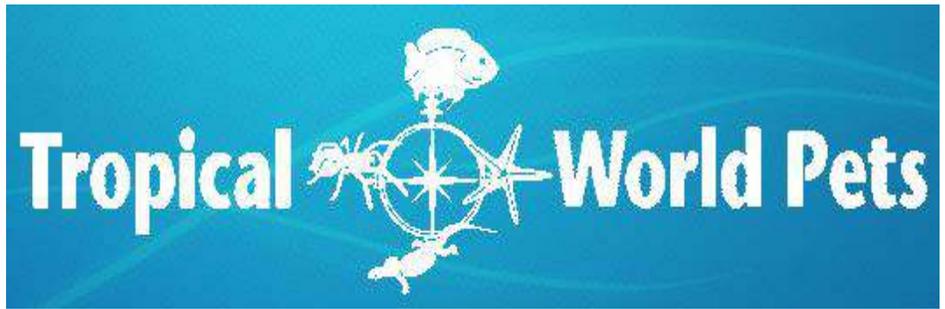
Danio margaritatus
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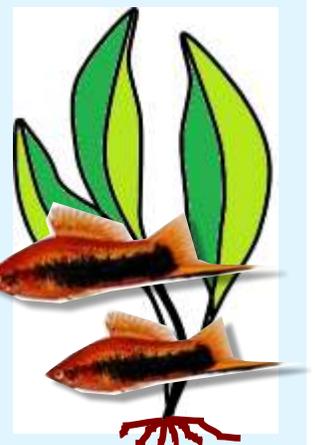
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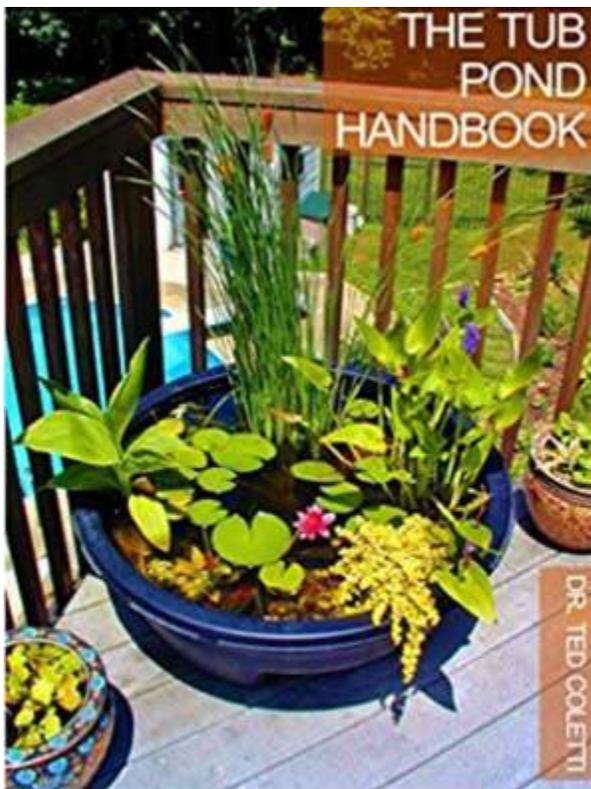
The Tub Pond Handbook by Ted Coletti

Wagtail Imprints, 2017, 180 pages paperback

A Short Book Review

By Mike Hellweg

A LA BULLETIN EDITOR Ted Coletti has been known as the "Summer Tubbin" guy for many years. He has talked and written articles about giving his



A Comprehensive Guide to Creating and Maintaining Patio Ponds, Container Water Gardens, and Tropical Fish Breeding Tubs

fish a summer vacation outdoors for many clubs.

At first it was moving an aquarium or two outdoors for the summer, but eventually it became a hobby unto itself. In this book he has put together all of his knowledge and experience into an enjoyable read. It is packed with great information.

I realize that we're at the end of the pond season now, but it is time to start planning for next year. This is when the farm and home stores and garden centers start getting rid of any remaining summer inventory as far as stock tanks, tubs, water gardens and ponds go.

Ted takes the reader through choosing the right location, planning, setting up the tub, planting, choosing fish, breeding fish, a selection of plants, and finally removing the fish, winterizing or removing the plants, and emptying the tub. There are sections that cover handling problems and pests, and feeding (or not).

He speaks from his own experience, and often writes in the first person. I tend to enjoy books like this that don't just regurgitate what others have said, but rather reflect the author's own expertise, knowledge and experience.

There are a couple of typos that don't distract from the overall reading experience, but I understand completely how those can sneak by the editing process, even with several sets of eyes looking at the book.

It is available on Amazon.com as an eBook, a black and white book, and a full color book. I bought the black and white book before the color version was available. The pictures enhance the text, but having them in color isn't that necessary in my opinion.

I found this an excellent read and can't wait to get some tubs set up next year. I noticed that the farm and home store near me has 40 gallon tubs on clearance...

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LIBRARY REPORT

MISC Contributors

Have you Read a Good Fish Book Lately?

MASI has several Hardcopy books available for you

to learn from or use as reference even though the prior book review was for an e-Book. To check out a book make arrangements with our Librarian, Dave Rush, at the meeting.

Below is a partial guide to checking books out. See a more complete set at

www.missouriaquariumsociety.com!

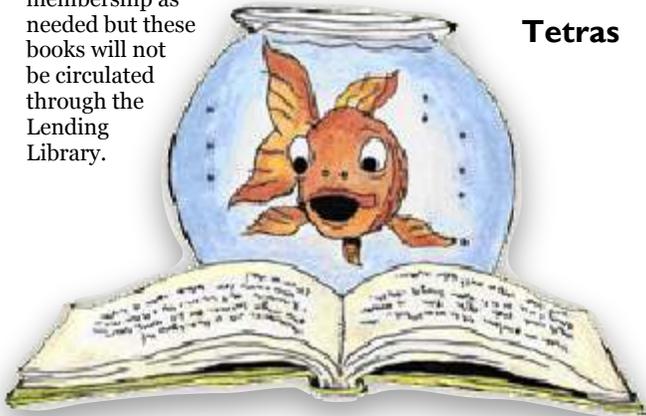
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- Rasboras**
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- Tetras**

Partial List of Titles Available

Partial List of Titles Available	Main Author
Bettas, Gouramis, and other Anabantoids	Vierke
Gouramis and other Anabantoids	Richter
A Fishkeepers Guide to Marine Fishes	Mills
Aquarium Atlas #1	Baensch
Dr. Axelrod's Atlas of Freshwater Fish	Axelrod
Encyclopedia of Fish	Burton
Sterba's Freshwater Fishes of the World Vol. I	Sterba
Breeding Aquarium Fishes - A complete introduction	Axelrod
How to Keep & Breed Tropical Fish	Emmens
Know How to Breed Egglayers	LaCorte
The Fascination of Breeding Aquarium Fish	Axelrod
A Complete Introduction to Corydoras	Burgess
An Atlas of Freshwater & Marine Catfishes	Burgess
African Cichlids of Lakes Malawi & Tanganyika	Axelrod
Cichlids & all other Fishes of Lake Malawi	Konings
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Dwarf Cichlids	Vierke
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The Most Complete Lexicon of Cichlids	Axelrod
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Prevention & Care Tropical Fish Diseases	Cohen
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Fish & Their Behavior	Zupane
School of Fish	Kepler
Water Chemistry for Advanced Aquarists	Huckstedt
Coldwater Fish	Ladiges
A History of the Aquarium Hobby	Klee
A Fishkeeper's Guide to Koi	James
Culturing Live Foods	Hellweg
Atlas of Livebearers	Wischnath
Killifishche aus Aller Welt	Radda
Lebendgebarende Zierfishche der Welt	Mergus
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Goldfish Pools, Water Lilies & Tropical Fishes	Thomas
Rasboras	Brittan
Encyclopedia of Sea Horses	Bellomy
Keeping Sea Horses	Straughan
Characoids of the World	Gery



2017 BREEDER'S AWARD PROGRAM - Steve Edie

Remember there is no Mini-Auction at the Christmas Party in December. Plan to turn in your outstanding BAP or HAP for auction at the November meeting.



July

Member	Genus	Species	Common Name	Points	Bonus	CARES	Total
Chuck Bremer	<i>Alfaro</i>	<i>cultratus</i>	Knife Edged Livebearer	10			1087
	<i>Xiphophorus</i>	<i>mayae</i> "Honduras" *	Mayan Swordtail	5	5		1097
Mike Huber	<i>Elassoma</i>	<i>zonatum</i>	Dwarf Banded Sunfish	20			1338
	<i>Xiphophorus</i>	<i>pygmaeus</i> "Rio Huichihuayan"	Dwarf Swordtail	10	5		1353
Debbie Sultan	<i>Chapalichthys</i>	<i>percaticus</i> "Presade San Juanico" *@	San Juanico Splitfin	15	5	15	960
& Tom Corradini							
Guy Tinker	<i>Astatotilapia</i>	<i>latifasciata</i> @	Zebra Obliquidens	10		10	117
	<i>Labidochromis</i>	<i>sp.</i> "Hongi"	Red Top Kimpuma	10			127
Pat Tosie	<i>Amatitlania</i>	<i>kanna</i> "Boca del Toro"		10	5		5390
	<i>Girardinichthys</i>	<i>multiradiatus</i> "San Miguel Spring" #@		0		20	5410
	<i>Skiffia</i>	<i>multipunctata</i> "Lago de Comecuaro" @		20		20	5450

BAP Key:

* = 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>



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2017 BREEDER'S AWARD PROGRAM - continued

August

Member	Genus	Species	Common Name	Points	Bonus	CARES	Total
Steve Edie	<i>Ameca</i>	<i>splendens</i> @	Butterfly Goodeid	15		15	250
Mike Hellweg	<i>Betta</i>	<i>sp. "cf ocellata"</i>	Eye Spot Betta	15			6930
	<i>Hasmania</i>	<i>nana</i>	Silver Tip Tetra	15			6945
Steven Hoffman	<i>Neolamprologus</i>	<i>multipunctatus</i>		10			170
Mike Huber	<i>Cynotilapia</i>	<i>afra</i>	Clown Afra	10			1363
	<i>Dimidiochromis</i>	<i>compressiceps</i>	Malawi Eye Biter	15			1378
	<i>Haplochromis</i>	<i>sp. "Tomato"</i>	Tomato Hap Cichlid	10			1388
Jerry Jost	<i>Corydoras</i>	<i>polystictus</i> *		10	5		2572
	<i>Corydoras</i>	<i>sp. "CW114"</i> *		10	5		2587
	<i>Corydoras</i>	<i>sp. "CW137"</i> *		10	5		2602
Cory Koch	<i>Astatotilapia</i>	<i>sp. "Thick Skin"</i> @	<i>sp. "44 Red Tail"</i>	10		10	4329
	<i>Tropheus</i>	<i>brichardi "Bulombora"</i> *		15	5		4349
Bruce Mayhew	<i>Poecilia</i>	<i>wingei</i> ^	Blonde Endlers	0	1		416
	<i>Poecilia</i>	<i>wingei</i> ^	Easter Gold Endlers	0	1		417
Ed Millinger	<i>Hypessobrycon</i>	<i>columbianus</i> *	Columbian Red Blue Tetra	15	5		950
Scot Roach	<i>"Xystichromis"</i>	<i>sp. "Kyoga Flameback"</i> @		10		10	117
	<i>Poecilia</i>	<i>wingei</i>	Blonde Endlers	5			122
	<i>Poecilia</i>	<i>wingei</i> ^	Super Red Endlers	0	1		123
	<i>Xiphophorus</i>	<i>sp. "Domestic Swordtail"</i> ^	Koi Swordtail	0	1		124
	<i>Zoogoneticus</i>	<i>tequila</i> @	Tequila Splitfin	15		15	154
	Mike Slater	<i>Brochis</i>	<i>splendens</i>	Emerald Cory	15		
Debbie Sultan & Tom Corradini	<i>Lichnochromis</i>	<i>acuticeps</i> **	Malawi Gar	15	10		985
	<i>Placidochromis</i>	<i>sp. "Blue Otter, Tsano Rocks"</i> *		15	5		1005
	<i>Thorichthys</i>	<i>maculipinnis "Dos Canos River"</i> *		15	5		1025
	<i>Xiphophorus</i>	<i>kallmani "Laguna Catemaco"</i> *		10	5		1040
Rick Tinklenberg	<i>Corydoras</i>	<i>sp. "CW021"</i>		10			2950
	<i>Laetacara</i>	<i>fulvipinnis "Rio Inirida"</i> *	AKA "Orangeflossen"	10	5		2965
Pat Tosie	<i>Nanochromis</i>	<i>minor</i> *		15	5		5470
	<i>Pseudocrenilabrus</i>	<i>sp. "Mweru"</i> *		10	5		5485
John Van Asch	<i>Corydoras</i>	<i>paleatus</i>	Peppered Cory	10			295



HORTICULTURE AWARD PROGRAM - Mike Hellweg July & August 2017



Remember there is no Mini-Auction at the Christmas Party in December. Plan to turn in your outstanding BAP or HAP for auction at the November meeting.

Member	Genus & Species	Common Name	Type	Points
Bruce Mayhew	265 points			
	<i>Cladophora aegagropila</i>	Moss Ball	V	5
John Van Asch	790 points			
	<i>Spirodela polyrhiza</i>	Giant Duckweed	V	5
Mekaela Tinker	65 points			
	<i>Eichhornia crassipes</i>	Water Hyacinth	OB	5
	<i>Nymphaea</i> sp. Mancala Ubon	Mangkala Ubol Water Lily	OB	20*
	<i>Nymphoides indica</i>	Water Snowflake	V	20
	<i>Nymphoides indica</i>	Water Snowflake	OB	20
Chuck Bremer	890 points			
	<i>Canna glauca</i>	Cannova Yellow	OB	10*
	<i>Canna glauca</i>	Red Shades	OB	10*
	<i>Canna glauca</i>	Mango	OB	10*
	<i>Cyperus percamenthus</i>	Dwarf Giant Papyrus	OB	10
	<i>Eleocharis interstincta</i>	Giant Spikerush	OB	10*
	<i>Iris versicolor</i>	Silver Edge Siberian Iris	OB	10*
	<i>Lindernia grandiflora</i>	Blue Moneywort	OB	10
	<i>Lobelia cardinalis</i>	Cardinal Flower	OB	10
	<i>Phalaris arundinacea</i>	Strawberries & Cream Canary Grass	OB	5
	<i>Acorus gramineus</i>	Varigated Sweet Flag	V	10
	<i>Cyperus alternifolius</i>	Umbrella Palm	V	10
	<i>Cyperus isocladius</i>	Dwarf Papyrus	V	10*
	<i>Cyperus percamenthus</i>	Dwarf Giant Papyrus	V	10
	<i>Eleocharis interstincta</i>	Giant Spikerush	V	10
	<i>Hydrocotyle leucocephala</i>	Brazilian Pennywort	V	10
	<i>Lindernia grandiflora</i>	Blue Moneywort	V	10
	<i>Marsilea quadrifolia</i>	5 Leaf Clover	V	15
	<i>Nymphaea</i> sp.	Salmon	OB	10*
	<i>Nymphoides germinata</i>	Yellow Snowflake	V	20
	<i>Pontederia cordata</i>	Pickereel Weed	V	10
<i>Typha laxmannii</i>	Slender Cattail	V	5	

HAP Key: Reproduction Key: V = Vegetative, OB = Outdoor Bloom, IB = Indoor Bloom, S = Seedling; * MASI First!



Mekaela:



Eichhornia crassipes
"Water Hyacinth"



Nymphaea
"Mangkala Ubol"



Nymphoides
indica

Horticultural Award Program Blooms

Chuck:



Canna glauca
"Canova Yellow"



Bloom, Fruit
& Seeds



Nymphaea
"Salmon"



Canna glauca
"Mango"



Canna glauca
"Red Shades"





**Cardinal Flower,
*Lobelia cardinalis***



***Lindernia grandiflora*
Blue Moneywort**



***Iris siberica*
"Silver Edge"**



***Cyperus percammentus* Dwarf Giant Papyrus**



***Eleocharis interstincta*
Spikerush**



***Phalaris arundinacea* 'Strawberries And Cream' Canary Grass: Seed Head, Blooming, Seed**



CLUB HOPPING - Steve Edie

Sep 22-24 – Madison, WI: Madison Area Aquatic Hobbyists - Cataclysm Catfish Convention

Sep 23 MASI/CAFE/Sailfin

Oct 1 - St Louis: MASI – Swap Meet

Oct 1 - Chicago: Greater Chicago Cichlid Association – Swap Meet

Oct 7-8 - Kalamazoo, MI: Southwestern Michigan Aquarium Society - Workshop

Oct 14 - Kansas City: Heart of America Aquarium Society – Auction

Oct 15 - Des Moines, IA: CEACich Aquatics - swap

Oct 21 - Rogers, AK: Northwest Arkansas Aquarium Society - Auction

Oct 21 - Wyoming, MI: Grand Valley Aquarium Club - Auction

Oct 22 - New Berlin, WI: Milwaukee Aquarium Society - Auction

Oct 22 – Alsip, IL: Greenwater Aquarist Society - Auction

Oct 28 - Peoria, IL: TriCounty Tropical Fish Society - Auction

Oct 28 - Madison Heights, MI - Motor City Aquarium Society - Auction

Oct 29 – Davenport, IA: Quad City Fish Keepers Swap

Nov 4 – Hiawatha, IA: Eastern Iowa Aquarium Association - Auction

Nov 3-5 - Chicago: Aquatic Experience

Nov 11 - Alsip, IL: Greenwater Aquarist Society - Swap

Nov 17-19 - Cleveland: Ohio Cichlid Association – Extravaganza

Nov 19 - St Louis: MASI – Fall Auction

Dec 3 - Chicago: Greater Chicago Cichlid Association – Swap Meet



Nearby Clubs linked to their logo



MASI 2018 - Save the Dates

Jan 20 - Champaign, IL : CAFE - Winter Auction

Feb 11 - St Louis: MASI – Winter Auction

Apr 21 - St Louis: MASI – Spring SWAP

Apr 22 - St Louis: MASI – Spring Auction

Jul 11 - Champaign, IL : CAFE - Winter Auction

Aug 12 - St Louis: MASI – Summer Auction

Oct 7 - St Louis: MASI – SWAP

Nov 11 - St Louis: MASI – Fall Auction

Other links are on the MASI

[Linkpage.](#)

Convention LogosHotlinked!



MEMBER CLASSIFIEDS

Buy/Sell	Member	Item Description	Bid/Asked	Contact
Sell	Charles Harrison	Thiosulfate crystals (Chlorine Remover) - pound	\$4.00	(314) 849-9761
		OTO double strength Chlorine/Chloramine test kits - 4 ounce	\$12.50	charles@inkmkr.com
		Flubendazole, 10% powder 25 grams	\$20.00	
		Lamisole HCl Powder - 5 grams treats 100 gallons	\$10.00	
		Methylene Blue 5% solution (4 ounces)	\$12.75	
		Acriflavine Concentrate (4%) solution, 2 ounces	\$12.70	
		Bromthymol Blue pH test solution, 4 ounces	\$7.00	
Sell	Charles Hoppe	Several 10 and 15 gallon tanks, including wooden rack. Makes a nice small fishroom. Extras, contact me if interested.		(314) 846-4648 charliehoppe@me.com
Buy	Mike Hellweg	Small Styro shipping boxes - 12 x 12 x 12 or a little bit smaller. If your company uses them and throws them away, save them! Bring to the meeting or I'll come pick them up	Free	(636) 240-2443

Got \$\$\$\$ swimming in those Tanks?

MASI Members of good standing can place a fish related classified ad in the Darter for free. Free ads may be up to 30 words in length. Send your ads to the editor. The 30 word ad can run each issue unless specified how long to run, in which case it will run as requested. Deadline is 10 days prior to the January, March, May, July, September or November MASI Meeting. The Darter is Emailed about 3 days prior to each of these meetings.

SHOP HOPPING - September, 2017

These Local Fish Shops (LFS) help introduce hundreds of people to the Aquatic Hobby every day. They also help the Missouri Aquarium Society reach those hobbyists and keep them engaged by promoting our programs. Support their programs too!

Special Events and Deals!

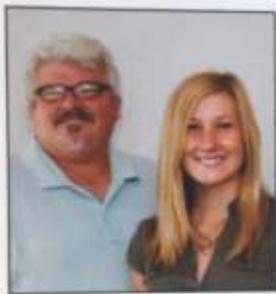
What	Where
New Facebook Posts	Saltwater Paradise
New Facebook Posts	Aquatic Treasures
Fish in Stock	Midwest Tropical Fish
Current Specials	petco
September Specials	PetsWay
Facebook	Pet Connection
Monthly Specials	Sailfin Pet Shop
Facebook/Specials	Aqua World
Monthly Specials	Tropical World Pets
Weekly Specials	Corals & More
Fish List	Malawi Aquatics

Happy Fish Shopping!

The Missouri Aquarium Society



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Monthly Bowl Show Entry Form

Entrant Name _____

Month/Year _____ Monthly Class _____

_____ Fold here and place in front of bowl(s) with Entrant name hidden _____

Line	Species: Latin or Common Name	SEX	Monthly	Open
1		M F		
2		M F		
3		M F		
4		M F		
5		M F		
6		M F		
7		M F		
8		M F		
9		M F		
10		M F		

September
Rainbowfish

October
SuperBowl

November
Aquatic
Invertebrates
& totally
aquatic
amphibians



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