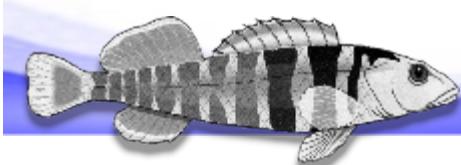


The DARTER

V47#2



January/February 2021



The DARTER

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Annual membership in the Missouri Aquarium Society, Inc. is \$15 and includes an electronic subscription to The Darter. B&W printed Darter's are available at the meetings for Members: \$5; Non-members: \$7. Published six times per year.

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.

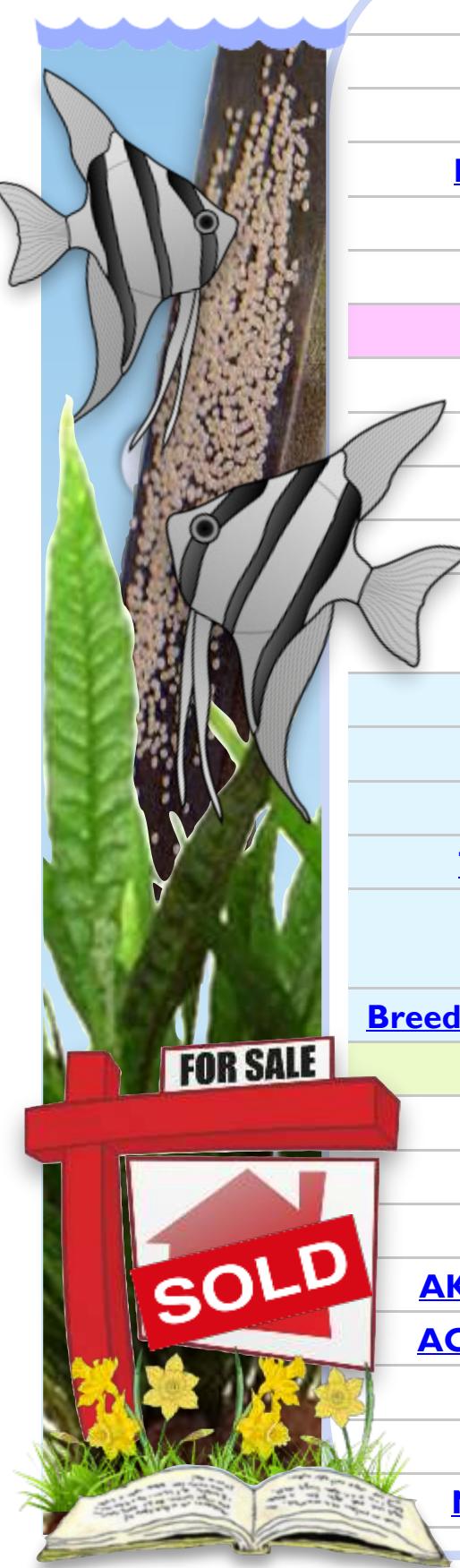
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**Cover - Melanotaenia
praecox - Neil Frank**



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Article Photos are provided by the Author unless otherwise noted.
Click/Tap this to bounce back here. Then tap/click the article you want to read next!





FROM THE PRESIDENT'S TANK

Pat Tosie

MEET ME AT A NATIONAL

Fish Convention

in St Louis!

2021

Killifish
June 11-13

Cichlid
July 23-25



AKA 2021

ST LOUIS, MO

Info:
AKA.org

Info:
Convention.cichlid.org



ACA 2021

St. Louis, Missouri
July 23-25

MISSOURI AQUARIUM SOCIETY

Chuck Bremer

FROM THE EDITOR

Things are coming back to "Normal". It's Spring and the spring flowers are already blooming in the yard only about 2 weeks after the coldest week in 14 years. Brrr!

Folks are beginning to move around as things open up. The Missouri Aquarium Society hasn't gone back to normal F2F meetings yet but it is anticipated soon.

Unfortunately we lost a long time and beloved member recently. See remembrances of Ron Huck in this issue.

As spring breaks and folks find other interests after a year's lock down the contributions to your Darter have slowed as well. Please consider writing what you have learned in the past year about your fish and plants so that others can have the advantage of the time you spend with them as well.

Content deadline for the next Darter of 2021 is May 11th.

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



**Other members
eagerly
anticipate your
contributions to
the Club!!**





MEMBERSHIP CHAIRMAN

Ian Eggert

MASI is still growing! MASI New Memberships!



New since January!

Steve Bonastia	Imperial, MO
Pamela Burton	St Louis, MO
Jamie Campbell	Marionville, MO
Sherri Davies	St Louis, MO
Lisa Hungler	High Ridge, MO
Micah Issitt	St Louis, MO
David Jenkins	Dayton, OH
Kevin Leong	Palo Alto, CA
Bryce McQuerrey	Foristell, MO
Michael Moehlenbrock	St Louis, MO
Michael Nelms	St Louis, MO
Robert Oliver	Coconut Creek, FL
Mark Strubel	Carrolton, IL
Sarah Svoboda	Shiloh, IL
Nicholas Thomas	Lake St Louis, MO
Luis Torres	St Peters, MO
Amy Wisneski	St Charles, MO

MASI has a very active public Social Media presence but Paid Members are "Members With Benefits"!!

A \$15 Yearly dues includes electronic subscription to The Darter, priority participation in F2F activities and rewards programs. Join or renew at most F2F events or by PayPal from the MASI [Website's Membership Page](#) or by contacting Ian Eggert, membership chair, at ijEggert@gmail.com.

Help MASI Support your Aquarium Hobby!

**Welcome
our new
2021
Members!**

**Paid 2020
Membership
included 2021
Gratis!**

**Talk to Caleb
Pitman to order one of
the new MASI Polo-
Shirts**



MASI Event Report:

MASI's Most Recent Activity- Bag-for-Bag BAP/HAP Swap

Yesterday, March 14th, 2021



THERE WERE 42 members who attended and brought a total of 216 bags of fish and plants. Of the bags offered, 52 BAP and 13 HAP entries were also submitted.

The event didn't start right on time because of the mix up with the Spring time change and some who didn't realize the time to have fish there was BEFORE the swap could begin, not after as with a regular swap.

Five of the 7 folks who joined the club in the past week took advantage of the event.

The Swap re-homed several unique fish and plants within the club.

These photos were taken of the plant table and two of the Fish tables over half way through the Event.



MASI - FREE Webinar: Thurs, March 18th, 2021, 7:30 PM CT!!

**Kurt Zahringer-
This is how I go fish-collecting!**



Always looking for any small tool or gadget that might prove useful in fish-collecting endeavors- assorted nets, water shoes, collapsible buckets & other various containers, transporting supplies, camera, etc. Kurt consideres to be the real secret to success on his collecting trips to Mozambique, Papua New Guinea, Mexico, Nicaragua, Florida, or just around Missouri.

Kurt is an active MASI member with Writer of the Year for his collecting trips to Nicaragua and additional articles on collecting including tying the handy icicle hitch knot for the seine.

Part time MASI auctioneer, he works at a Vet clinic and has spawned over 20 species new to the club's BAP program.

This should be an in-seine program!!

View the 2020 MASI Collecting Trip Kurt organized on the MASI YouTube Channel.



[Tinyurl.com
/MASI-video](https://tinyurl.com/MASI-video)

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For fish products shop the **yellow and blue aisles.**



Kurt Zahringer- This is how I go fish- collecting!

FROM MY CHILDHOOD days of catching minnows & crayfish in the creek behind my friend's house, to seining in a stream on the other side of the globe, my excitement for catching small aquatic critters has never changed over the years; only grown more sophisticated.

Every time I venture out into the water with net in hand, and later transport fish long distances, I develop new techniques and learn from my mistakes; thus getting a little better for the next time. I'm constantly on the lookout for any small tool or gadget that might prove useful in my fish-collecting endeavors. After several years, I've assembled a complement of fish-collecting & transporting gear that I can throw in the back of my car whenever the need arises. This includes my assorted nets, water shoes, collapsible buckets & other various containers, transporting supplies, camera, etc.

These are what I consider to be the real secret to my success in past collecting trips, which include: twice to Mozambique (Africa), once to Papua New Guinea, once to Mexico, three times to Nicaragua, once to Florida, and innumerable times around Missouri.



Kurt has a lifelong passion for keeping & catching small fish since his earliest childhood, starting with a tank of red-capped orandas at age 3.

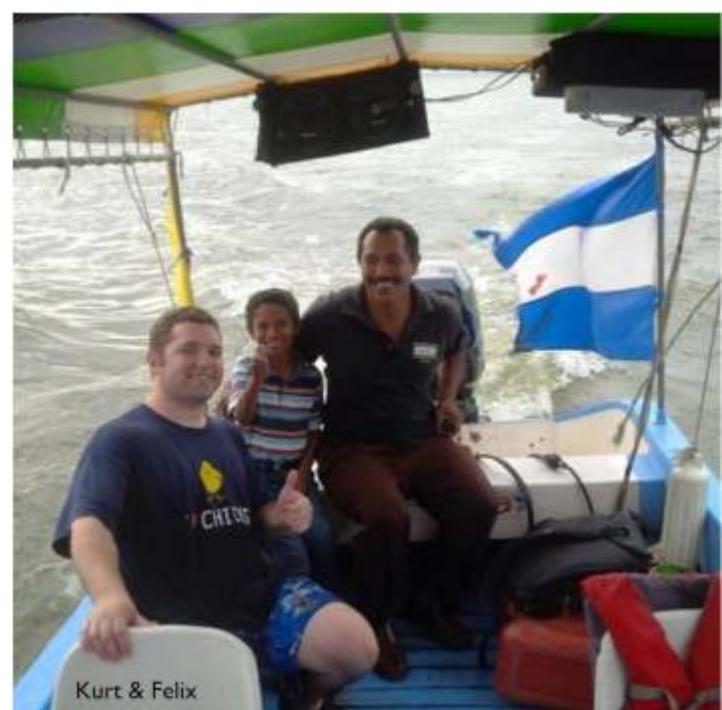


He joined MASI in 2009, thanks to reading articles by Mike Hellweg in the pages of Aquarium Fish Magazine. Since then, he's accumulated several more tanks and has bred numerous species through MASI's BAP program. One such BAP submission was later featured in Amazonas, Keeping & Breeding *Tetraodon uvattii*, the Arrowhead Puffer.

He graduated from the University of Missouri with a BS in Biology in 2009, and currently works as a veterinary assistant, and substitute teaches part time. He also operates a small side business maintaining aquariums in homes & offices.

In 2015, he made his first trip abroad to Nicaragua to perform volunteer work and caught his first wild tropical fish. Since then, he's made at least one similar trip each year, with travels taking him to Papua New Guinea, and most recently, Mozambique.

Between these big trips, he often relishes wading in the streams of southern Missouri, never ceasing to be amazed by the beauty of aquatic fauna.



Kurt & Felix



MASI General Meeting FREE Webinar: 7:30 PM CT, Thurs, April 15th, 2021!!



Neil Frank: Aquarium plants for fish keepers



Presents Neil's vast experiences with aquarium plants over the last 3 decades

...Providing interesting tips for growing healthy plants, and showing their benefits for keeping and breeding fishes. Also, rather than popular aquascaping how to create varied planted aquaria thru aquatic gardening and plant tank maintenance. This is illustrated by the evolution of several tanks over a ten year period.

Neil's bio....

Neil has been in the aquarium hobby since he was 14 and never had a tank without live plants.

As a serious aquarist for the past 4 decades, he helped unravel the mysteries of successfully maintaining plants in freshwater aquaria. Neil was the principal organizer of the Aquatic Gardeners Association and from 1991 to 1999 was the editor of The Aquatic Gardener, the AGA journal. He has had numerous articles on aquatic plants and fishes in TAG, FAMA and other aquarium magazines including several periodicals in Asia and Europe. He is also an avid collector of aquaristic literature, focusing on older aquarium publications and everything ever printed on aquarium plants.

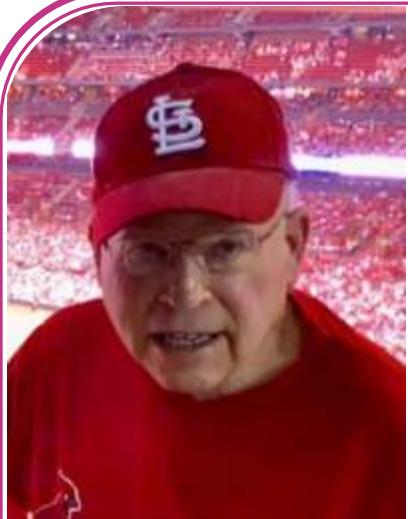
Now retired, he has renewed his focus on the aquarium hobby. He enjoys breeding, photographing and studying the behavior of fishes. Although he still maintains several large planted aquaria, he also keeps his plants in somewhat more traditional "fish tanks!"

A charter member of the Raleigh Aquarium Society (established 1981), Neil is currently its program chair.



[Tinyurl.com/MASI-video](https://tinyurl.com/MASI-video)





Ronald D. Huck

Friend and Face of the Missouri Aquarium Society for Many

Born March 9, 1948 - Passed January 11, 2021

Remembrances:

RELOVED HUSBAND OF Jeanette Huck (nee Uebel); loving father of Elissa Huck; dear brother of Randy (JoAnn) and Tom Huck and Debbie Taylor; dear brother-in-law, uncle, great-uncle, cousin and friend.

Funeral Mass were live streamed on St. John Paul II's website, Fri. Jan. 15 at 1:30 p.m. Private interment. Donations to Cardinals Care appreciated. Kutis Affton services.

MASI made a donation to Cardinals Care in Ron Huck's memory.

On January 11th of this year we lost long time MASI member- Ron Huck

RON AND I met many years ago at a MASI meeting. Ron thoroughly enjoyed membership in MASI. He was our membership chair from 2011 to 2017. After that he was our welcoming chairman.

This was the perfect job for Ron. He enjoyed meeting new people and discovering what their interest in our great hobby was. Ron was very sincere in his interest. Over the last year he spent far too much time in hospitals and a nursing home, yet every time I talked to him the first words out of his mouth were "How are You?" It was just like Ron to put others first. I told him the question was "How Are YOU?"

Ron was fortunate to live close to Jim "Junior" Miller. Jim had Ron take care of his fish room while on vacation. Anybody who knew Jim realized you couldn't visit his fish room and not leave with some great plants or fish that he wanted to share with others.

Visiting fish rooms was something Ron thoroughly enjoyed. His own had over 40 tanks operating at any one time. Jim took Ron along on a trip to Chuck Bremer's and Ron couldn't stop talking about how great Chuck's was. Of course he loved visiting Mike Hellweg's, he was like a kid in a candy store.

Ron's favorite fish were emperor tetras and angelfish. He even incorporated emperor tetra into his e-mail address. We will certainly miss Ron and getting to visit with him and talk fish.

Ed Millinger



Meet MASi Fishy Folk - Ron Huck



- **Family members?** There are three members to my family, including my wife, Jeanette, and our daughter, Elissa.



Ron in his fishroom beside the newly conquered Yellow Labs and his next challenge, the *Julidochromis marleri*.

The Face of MASi to new members for over 10 years!

- **Years keeping fish?** I have been keeping fish for 52 years.
- **What was in your first tank?** My first aquarium contained Zebra Danios.
- **How many tanks do you have set up right now?** I have thirty five tanks set up right now.
- **Favorite fish as a pet?** My favorite fish as a pet are marble angelfish.
- **Your dream fish?** My dream fish are black veiltail angelfish.
- **Your dream tank?** My dream tank is a 75 gallon planted tank with angelfish.

55 gallon planted tank with black veiltail angelfish.

- **Your latest fish related accomplishment?** I was able to breed yellow labs.
- **Your latest goal?** My latest goal is to breed *Julidochromis marleri*.**
- **Other pets?** I have a dog and cat.
- **Anything else about you or the hobby you want us to know?**

“I enjoy meeting people and being a member of the Missouri Aquarium Society.”

****Editor's note:** The last BAP turned in for Ron was the very similar *Julidochromis marleri* at the Parking Lot Swap- 11/8/2020.

In my opinion he attained his goal.



- **Ron's Pearl Gourami won Best Anabantoid and his Congo Tetra won Best Fish in the 2016 Show**



Ron Huck

THE TITLE FOR this article just never came to me. I mean what could I say? "Ron, MASI asset"? "Ron the friend to all"? "Ron, the man who made it a point to know everyone and make them feel important"?

Ron kept a notebook and pen on him at all times. He told me he did that to make notes on people and situations he encountered. So he could remember. It was a trick he learned from his job in sales. And, he told me it was nice to remember people. If he met you for the first time, he asked about you, and your family. Then when he had time he jotted down what he learned. Not in an intrusive way, just in a way he could remember. The next time he saw you, he could recall your spouse, your kids, and the fish you kept.

Once I had to call him about an urgent MASI matter. He had given me his work number for just such a situation. When I called, the person on the phone chit chatted with me, telling me what a great man Ron was and how "we all just love him". Later, I told Ron that his co-workers held him in esteem. He just kind of "Oh shucks" and waved it off. I really hope he knew how much he was valued at work.

One of Ron's passions were Emperor tetras. If we were discussing ordering fish at Beldt's Aquarium, and Emperors were at a good price and healthy, they were ordered. Mind you, we all liked Emperors too but they were notoriously difficult to keep in a hatchery situation. That did not matter to the Macrums. They would say to us, "be sure Ron knows". They did that for few people.

What always struck me about Ron was his generosity. If he and I were bidding on the same bag of fish and he knew it was me bidding- he would stop. Well, unless he really wanted the fish... But then he would offer me some of the fish later. Or he would promise to give me some once they bred.

His generosity extended to fish knowledge. He never avoided answering



questions about the fish he kept. I got a lot of hands-on info about fish care from Ron. Conversely, he cheerfully asked questions about anything he was curious about. It was always fun talking to him because it was a real conversation. He listened.

Ron made MASI events just a little warmer, friendlier. He greeted everyone like he cared about them. He spoke to people about their lives. And he never cared if they weren't born St Louisians. There was never any "us" and "them". He spoke to kids and adults with the same kindness.

Ron taught me a lot. Especially about listening. Yet, he was so humble, I know he did not know the great person he was. So, the title is how he saw himself. Just plain

"Ron Huck"

Kathy Deutsch



Meeting Ron

SOME YEARS AGO, 10 maybe 15, ...I loose track of time... I was having lunch at the Cecil Whittaker's in Ellisville when a small, bald headed man came in and sat down at the table next to me.

We said hi to each other and exchanged some pleasantries and for the next few minutes, caught each other staring at the other. you could tell we both thought we knew each other from somewhere.

Now I'm not very good at remembering names but once we've met, I won't forget a face and I just knew I knew this man from somewhere. My curiosity got the better of me and as he looked as if he should know me as well, we went about trying to ascertain from where we might know each other.

Our game of 20 questions had begun.

First were introductions, sports, addresses, areas we lived in, church, occupations and more but couldn't

come up with anything. Our lunches arrived and as we sat eating, it began to gnaw at me that I couldn't remember where I knew this gentleman from.

And then it hit me! A few weeks prior I had gone to a M.A.S.I. meeting where, you guessed it, a small, bald headed man sat next to me, introduced himself, and welcomed me to the meeting. We sat and talked about fish until Pat Tosi yelled at everyone to settle down (*just kidding, Pat*). Even though I clearly was not (*and still am not*) the aquarist he was, he was genuinely interested.

Back to Cecil Whittaker's... I said to the man, "are you a member of M.A.S.I.?" And of course he replied he was, so I explained to him where we had met.

Through the years, if I ate my lunch late enough, Ron and I would see each other at Cecil Whittaker's and talk fish. I didn't know Ron very well but I will always remember when he went out of his way to welcome me to the club.

He will be missed!

Steve Metzler

Ron Huck

Ron Huck has been around the club for a long time and he has been a friend for almost as long. I'm not sure how long because it just seems like he was always there. Ron's smiling face was at almost every MASI event for as long as I can remember. He was responsible for welcoming new members and he took that very seriously. He gave new members a friendly welcome, talked a bit about their fish, and introduced them to folks in the club who had similar interests.

Ron and I both worked in retail management, so we would commiserate about the weird things corporate would dictate to us, the silly things customers did, the weird things shoplifters tried to get away with, and the strange things employees would do ...or not do. We always had enjoyable conversations about work and I looked forward to hearing his latest story.

Of course, there was always what was going on with the Cardinals, too. He loved to talk about them. I enjoyed hearing his take on the latest trades and on things that happened during the season.

Then of course, there were the fish. Ron's favorite fish was the Emperor Tetra. He was always

disappointed that the local shops wouldn't carry them (they still don't for some reason) so every couple years I would have to make sure to order some for him. When we both had a day off on the same day, he would come over and we would spend time talking about fish, aquarium gadgets, work and the Cardinals. I always looked forward to his visits and to our conversations.

He was so proud of his daughter Elissa. He was always talking about her. I still think of her as the little girl running around the meetings, even though she has grown into a young woman and now graduated from college. I haven't seen her as often as when she was younger, but I still felt like I did because Ron was always talking about her. Ron's last few months were hard on him and on his family. I'm sure he's in a much better place now.

I will miss seeing his smiling face, miss hearing his stories, and miss talking about all the many things we talked about. He always had a joke, an interesting observation, or just a friendly hello and a smile. MASI events won't be quite the same without him.

Rest in peace my friend.

Mike Hellweg





COUNCIL MINUTES

Executive Council

The voting portion of the Executive Council consists of 4 elected officers, 6 elected council members and the 3 appointed positions: Auction Chair, Editor and Show Chair.

On page 2 are contacts for the current Executive Council and other Committee Chairs and Service positions within our Club. Please provide input to anyone or to attend the Council meetings yourself.

Members are invited to attend the Council meetings to bring up issues, contribute to the discussion or just to see how the club is run. Meetings are currently being held by invitation on the ZOOM platform. Contact the Webmaster (Charles@inkmkr.com) if you desire an invitation.

Give the Council your Feedback or Support!

COUNCIL MEETING

12/28/20

Pat Tosie called the Zoom meeting to order at 7:42. Present were Gary Lange, Jack Heller, Angela Hellweg, Ian Eggert, Charles Harrison, Jake Harris, Mike Huber, Mike Hellweg, and Chuck Bremer.

- The next Council meeting is Jan 28.

REPORTS

- **SECRETARY:** Angela read the Minutes from the Nov meeting. A motion to approve was made by Mike Huber and was seconded by Ian Eggert. The motion passed.
- **TREASURER:** Jack read the Treasurer's report. A motion to approve was made by Mike Hellweg and was seconded by Mike Huber. The motion passed.

• **EDITOR:** The deadline for Darter submissions is Jan 11. Chuck is sending articles to be judged for the 2020 Writing Award.

• **ACA CONVENTION:** Cobalt is providing tanks for the convention. They will be sold at cost to convention workers at the end of the convention.

• **AKA CONVENTION:** Registration begins on 12/31/20 at midnight central time.

• **AUCTION:** Mike is still working on an online auction for Feb 28.

• **BOWL SHOW:** Participation has been low.

• **LIBRARIAN:** Mike Huber said that the books have been sorted, but a list still needs to be compiled.

• **MEMBERSHIP:** MASiC membership has reached 200.

Next Executive Council Meeting:

Thursday, March 25, 7:30 PM on Zoom

- **YOU TUBE:** Jake reported 600 subscribers so far. He needs more content ideas, such as short how-to videos.

OLD BUSINESS

- MASiC still needs a new Membership chairman and Exchange Editor.

NEW BUSINESS

- Face to Face General meetings are still not planned at this time.

A motion to adjourn at 8:57 was made by Ian Eggert and was seconded by Gary Lange. The motion passed.



This Council Group Email Address reaches all the Executive council at once: Council@MissouriAquariumSociety.com





MASi Executive Council 1/28/2021

COUNCIL MEETING

1/28/21

Pat Tosie called the Zoom meeting to order at 7:39. Present were Gary Lange, Jack Heller, Angela Hellweg, Ian Eggert, Charles Harrison, Jake Harris, Holly Paoni, Caleb Pitman, Mike Hellweg, Chuck Bremer, and Chris Mohrle.

The next Council meeting is Feb 25 at 7:30.

REPORTS

- SECRETARY:** Angela read the Minutes from the Dec meeting. A motion to approve the amended Minutes was made by Mike Hellweg and was seconded by Ian Eggert. The motion passed.
- TREASURER:** Jack read the Treasurer's report. A motion to approve was made by Charles Harrison and was seconded by

- Chuck Bremer. The motion passed.
- EDITOR:** The deadline for the March/April Darter is March 8.
 - ACA Convention:** Pat is looking for volunteers.
 - ADVERTISING:** Holly has put out an online blast about the AKA Convention.
 - AUCTION:** Mike is still working on the details for a future online auction.
 - BOWL SHOW:** Chris said that participation is up.
 - EXCHANGE:** Chuck has added two new clubs.
 - SOCIAL MEDIA:** Holly has deleted many online posters for not following the rules.
 - SPEAKERS:** Gary has speakers lined up through April.
 - YOUTUBE:** Jake is going to post a DIY tutorial on making a breeding trap for celestial pearl danios.

OLD BUSINESS

- Ian Eggert has agreed to be the new Membership chairman.
- Steve Coxon is the new Exchange Editor.
- Mike will be attending an IRS webinar about the 501 (c)3.

NEW BUSINESS

- Dorsett Village Church is no longer available as the site for our monthly General meetings. Jerry Jost has offered to have the meetings at his company, but it won't be available until after April. The meetings will be held at the Holiday Inn Airport West if face to face meetings are held before that time.

A motion to adjourn at 8:42 was made by Charles Harrison and was seconded by Caleb Pitman. The motion passed.



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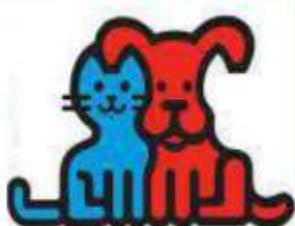
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EXCHANGE EDITOR's CORNER

Steve Coxon

March 2021

I am happy to be the new exchange editor for the Missouri Aquarium Society. As such, I get to read newsletters from aquarium clubs across the country and it has been especially nice to have more hobby related reading during the winter months!



In the past month, I have received newsletters from:

- ➲ Greater Seattle Aquarium Society (GSAS)
- ➲ Eastern Iowa Aquarium Association (EIAA)
- ➲ Greater City Aquarium Society - New York (GCAS)
- ➲ Minnesota Aquarium Society (MAS)
- ➲ Motor City Aquarium Society (MCAS)
- ➲ Circle City Aquarium Club (CCAC of Indianapolis)
- ➲ Bucks County Aquarium Society (BCAS of Pennsylvania)
- ➲ Raleigh Aquarium Society (RAS)
- ➲ North Jersey Aquarium Society (NJAS)
- ➲ Ontario's Kitchener-Waterloo Aquarium Society (KWAS)
- ➲ Even all the way from the Australia New Guinea Fishes Association of New South Wales (ANGFA-NSW).

The latter included a short article on *Pseudomugil gertrudae* with excellent pictures. This was of personal interest as it's a species I recently obtained from Gary Lange. They spawned for me immediately and I'm now raising about 30 fry.

Other articles of interest included one by **MASI's own Kathy Deutsch on the pros and cons of "Small self-contained tank systems" reprinted in Fin Flap from Eastern Iowa.** Motor City produced a detailed report on *Corydoras polystictus*, a small Brazilian cory. I also found an article on the algae eating abilities of nerite snails to be encouraging in North Jersey's Reporter.

Please let me know if there are topics of particular interest you would like me to look out for as possible reprints or reading materials.

In my brief experience, The Darter contains significantly more content than other newsletters. We are very fortunate to have such a vibrant club with numerous contributors willing to share their knowledge and experiences.

I encourage you to share yours!

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MASI AUCTION MESSAGE

Mike Hellweg

finally! If this continues, and if the County continues to relax restrictions, we will be able to have an auction!

It won't be a normal auction quite yet. There will still be a limit on attendance, the room will be set up differently to allow for social distancing, and we'll be holding the total to 300 items to keep the auction short, but it will still be a face to face auction! Keep an eye on your email for notices and details as we get closer.

For this auction, we will be limiting sellers to 12 items per seller, and limiting seller numbers to club members only. Hopefully by August things will be closer to normal. But we've got to start somewhere.

Masks will be REQUIRED of everyone while they are in the building. At this point in time I can't believe I still have to say this, but if you don't want to wear a mask, please don't come to the auction. We are all adults and we are all in this together, and we all have to deal with what is, not what we want it to be. Number one we are a social club and we want everyone to enjoy themselves - the masks are a pain, but they are also a courtesy to your fellow auction attendees. We'll make it really simple - if you refuse to wear a mask and make a big deal about refusing to wear one at the auction you will simply be banned from any future auctions - no selling, no buying, no attending. Period.

As I keep saying - in the meantime stay in your fishroom, change lots of water, and if you go out, wear a mask!

Watch the Facebook page, Band page, website and your email for updates as we get closer.

And for now, 'nuff said,

Mike : Auction@missouriaquariumsociety.com

NEW on MASI's YouTube Presence

Go on over, look around and get acquainted. Subscribe for notice of new videos as they are posted. This is where the Missouri Aquarium Society's monthly Webinar happens!

Hear Kurt Zahringer discuss preparing for collecting trips this month.

Jake would be glad to give other members a chance to see your Fish Tanks. Just let him know.

Go there easily anytime by using this easy to remember link:

[TinyURL.com/MASI-video](https://tinyurl.com/MASI-video)



MASI 2020 Challenge Extended through 2020 & 2021!!



CONSERVATIONFISHERIES
PRESERVING THE SOUTHEAST'S AQUATIC BIODIVERSITY

KNOXVILLE, TN



CFI is a non-profit, 501(c)3 organization in Knoxville, Tennessee, dedicated to the **preservation of aquatic biodiversity** in our streams and rivers. They develop techniques to propagate nongame fish, including some of the **most imperiled species** in the region and the first facility in the Southeast to do so.

CFI's primary goal is to **restore fish populations** that have been eliminated because of pollution or habitat destruction but also produce many rare or difficult-to-collect species for other purposes related to aquatic conservation.



**GOAL:
\$2000+**

Jack Heller has Challenged MASI to help support this worthy entity support our native fishes!!

Featured species profile: © CFI

Noturus crypticus | Chucky Madtom



The Chucky Madtom, *Noturus crypticus*, is a recently described (2005) saddled madtom that remains on our "wish list". Despite extensive recent surveys, only three specimens have been collected over the past 10 years. This fish was most recently observed in Little Chucky Creek in east Tennessee. Two (male & female), collected in 2004, lived in our facility. The female died before any spawning could occur and the male lived at CFI until he died as well in 2008. Agriculture has impacted the creek and all surrounding streams. If additional specimens can be collected we hope to propagate more Chucky Madtoms to enhance the population in Little Chucky Creek. **As of August 9, 2011, the Chucky Madtom was listed as endangered by the USFWS.**





CHRIS

Bowl Show

propagationaquatics@gmail.com

Virtual Bowl Show Winners



HOLLY

Social Media

hpaoni@gmail.com

Don't forget:

Bowl Show Entrants get *Fish Buck Rewards!!*

propagationaquatics@gmail.com

Our Bowl Show is now ONLINE, and can be found under our pinned notices in our Facebook discussions group- <https://www.facebook.com/groups/MissouriAquariumSociety/>. There are 2 classes each month, each in their own pinned post.

We want this to be a fun and easy way to participate in the club, while we aren't able to meet. You also earn bragging rights, fishy bucks, and may see your photo fish on the cover of a social media group and in the Darter.

We hope to see everyone enter the contest soon!



This is not a photo contest, it's a **FISH** contest!



There's still time to enter the Month's Virtual Bowl Show on MASI's FaceBook Discussion Group
[Link to Rules and Placement on FB](#)

MARCH -

- **Class A** - Killies & Ricefish
- **Class B** - Natural Aquascapes. (Use of driftwood, rocks, and live plants)

APRIL -

- **Class A** - Cories. Includes Aspidoras, Brochis, Corydoras and Scleromystax catfish .
- **Class B** - Fancy Finned Bettas

MAY -

- **Class A** - Fancy Finned livebearers
- **Class B** - Unnatural aquascapes. (Legos, toys, fake plants, etc.)

Each entry earns 1 Fishy Buck.

- **3rd Place gets 3 bucks,**
- **2nd place gets 4,**
- **First Place and peoples choice get 5 fishy bucks.**

Anyone can have 5 entries per month... So start collecting those fishy bucks, for our awards banquet fishy buck auction.

Get those entries in. ;-)



January Bowl Show - Class A- Aquatic Critters/ Oddballs Sharks, Loaches, Eels,



Eric Bazzell - These are **Magic Johnson and Larry Bird**. They are a little less than a year old and are both about 7 inches long. Living together in an unheated 55 gallon.



Clarissa Wyckoff - **This is Frick!**
Frick is a 4 year old albino dojo loach, and I raised him from a tiny little 1/2" long baby. He lives in an unheated 150 gallon tank.



Drew Clark - **Golden Dojo Loaches.** 4.5 inches long females, adopted them last year so unsure of age. 29 gallon includes Brilliant Rasboras, Harlequin Rasboras, 2 dwarf frogs, and a black skirt tetra.



Clarissa Wyckoff - 4 year old dwarf chain loach. They're two inches long but good luck getting a photo of them next to a ruler. Pack of 6 that live in the 76 degree planted 55 gallon tank. Super fun!



YEARLY SHOW CLASSES

JUNE -

Class A - Characins: Tetras, Pencilfish, Piranhas, Pacu, Silver Dollars, etc.

Class B - Bare Essentials. Fish that are 1 solid color, including finnage.

JULY -

Class A - Catfish, all types except cories (See April).

Class B - Outdoor aquarium aquascapes. (Includes tubs, containers, ponds)

AUGUST -

Class A- Wild type and standard finnage Livebearers

Class B- Tubs, Containers & Pond plants and 'scapes.

SEPTEMBER -

Class A- New World Cichlids

Class B - Fish raised outdoors for the summer season. (pond, tub, containers, tanks)

Please show in a flat sided clear containers, with the outdoor container visible in your entry photo.

OCTOBER -

Class A - Rainbowfish & Blue eyes

Class B - Giant Fish, fish that are 12 inches or more.

NOVEMBER -

Class A- Cyprinids: Barbs, Danios, Rasboras, Minnows, Goldfish

Class B - Your Favorite tool or hobby gadget

DECEMBER -

Class A- Anabantoids: Bettas, Gouramis, Ctenopomas, etc. (Excludes fancy finned bettas)

Class B - Holiday inspired tanks

JANUARY -

Class A - Aquatic Critters/ Oddballs Sharks, Loaches, Eels, Oddballs, and fully aquatic Amphibians

Class B - Shrimp & Snails

FEBRUARY -

Class A - Old World Cichlids

Class B - Hobby Related Art. Must be made by person entering, and still own the artwork.

MARCH -

Class A- Killies & Ricefish

Class B - Natural Aquascapes. (Use of driftwood, rocks, and live plants)

APRIL -

Class A- Cories. Includes Aspidoras, Brochis, Corydoras and Scleromystax catfish .

Class B - Fancy Finned Bettas

MAY -

Class A - Fancy Finned livebearers

Class B - Unnatural aquascapes. (Legos, toys, fake plants, etc.)



January Bowl Show

CLASS B - Shrimp & Snails



Megan Moncure - 1.5 year old **Yellow Spotted Rabbit snail** with blue dream neo shrimp, 20 gallon tank. With size reference but there are a few baby rabbit snails!



Steve Coxon - **Neocardinia davidi "Blue dream"** in my 2.5 gallon desktop tank on a dwarf lily leaf.



Jess Bowers - **Neocardinia davidi "Red Cherry"** born in my 5G Fluval Spec. Female, 2 months old, among roots of *Hydrocotyle Leucocephala*. Fluval Stratum substrate, heavily planted low tech tank, Indian Almond leaves, driftwood, rock.



February Bowl Show

Class A- Old World Cichlids

Class B - Hobby Related Art made by person submitting



Lisa Hungler - African yellow lab. Male.



Matt Seggerman - 125 stand, hand painted

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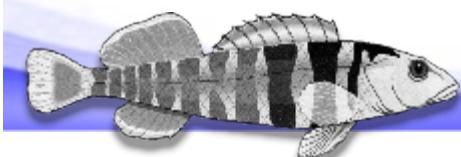
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Can't start the Kids too young!

WE RECENTLY RECEIVED the following conversation from Dr. Bob Hrabik around a Magic Slate drawing made by his 8 year old, 2nd grade Granddaughter:

From Jenny, Bob's Daughter:

Subject: Lizzy fish picture

Lizzy drew this fish, she wants you to guess what it is!! ??

Bob:

How about a “**topminnow**” from your aquarium?

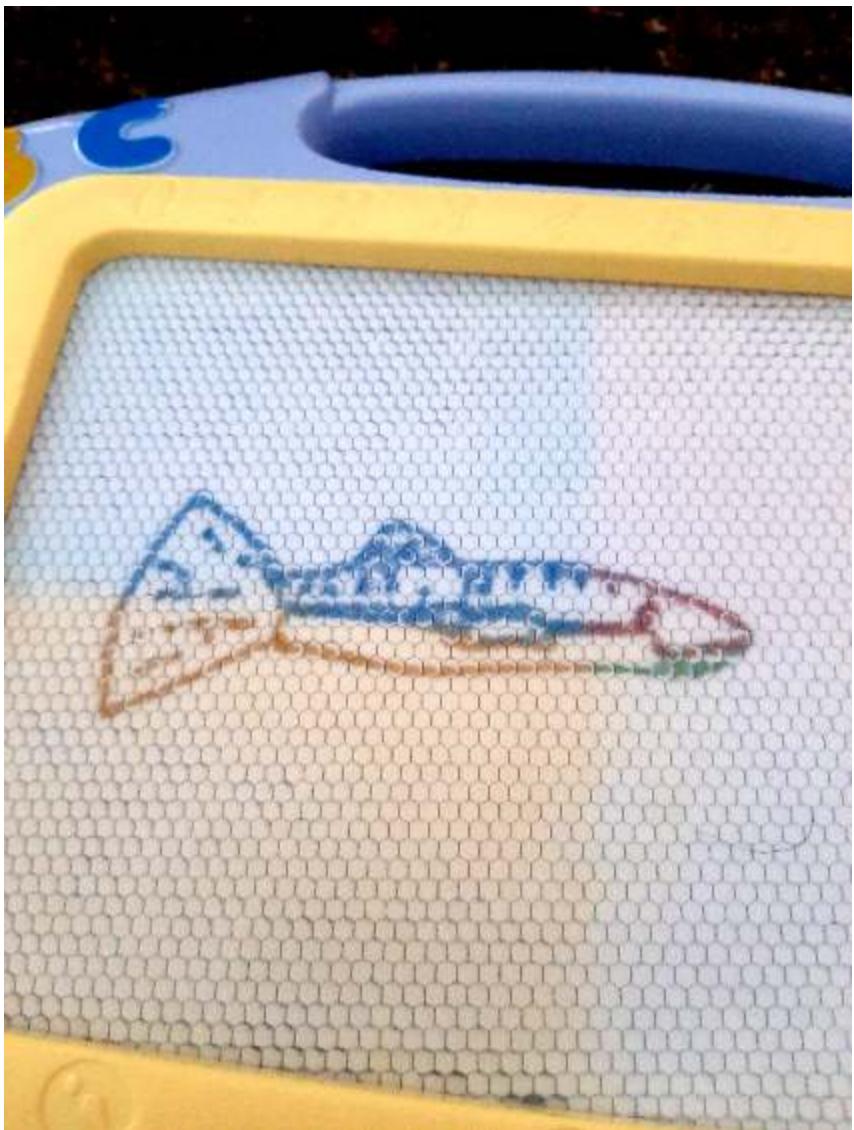
Jenny:

Correct! But she called it a "**top meow**" ??

Bob:

Hahahahahaha! A “top-meow”, she cracks me up!

Ed note: For those of you who don't know, Bob is the Missouri Department of Conservation State Ichthyologist who "**Wrote the soon to be published Book**" on Native Missouri Fishes. Looks like he has a budding Ichthyologist following in his wake!



AQUA-WORLD

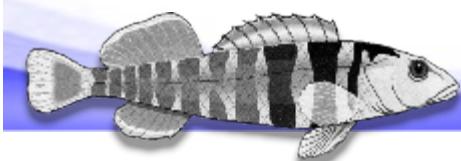
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Aqua-World facebook





Breeding *Panaqolus* sp. L169

By Derek Walker

L169 IS ONE of the most fascinating species of the *Panaqolus* genus. There are a number species that carry the same pattern and color as the L169, also called the LDA001 or Gold Stripe Panaque.

Planet Catfish reports that LDA001/L169 come from the middle of the Rio Negro. If that is the case this species could come from either of two different waters. At the middle the Rio Negro and Rio Solimões rivers come together creating the phenomenon "Meeting of the Waters" with two different water parameters.



© Loricaridae.info Enrico Richter

The Rio Negro is a blackwater river caused by humic acid- basically the breakdown of organic matter that flows into the river- and has an average temperature of 82 degrees Fahrenheit.

The Rio Solimões has a cream coffee appearance and is known for its rich sediment that flows down from the Andes Mountain. The Rio Solimões has a much faster flow rate and creates the separation of the river when they come together. The Solimões has a cooler temperature of 70 degrees Fahrenheit.

I was able to get a group of four fish, already 3 inches long, from Andrew White. About a week later I lost one for no apparent reason so was down to three appearing to be all

males. I was able to locate more but it would have taken time to get them, however, I found someone who was selling a single fish. When I picked it up I knew it was a female and I had a pair for sure.

Sexing these fish is easy once they reach maturity. Males have large odontodes (dermal teeth) on the interopercula (gill plate) and caudal peduncle. Females have short interopercular odontodes and very small to none on the caudal peduncle.

The group was placed in a bottom 20 long with just a sponge filter, root wood, and a few caves. They were feed all kinds of food but they seemed to enjoy the soft root wood rather than wafers. I kept them in this tank for a while and didn't see any breeding activity whatsoever. After the cold weather arrived my bottom tanks start cooling off in the upper 60's to lower 70's. So I knew it was time to either place a heater in the tank or move them. I decided to move them because I had some Cory cats that needed the cooler temperature.

The LDA001 were moved to a top tank and I tested the bottom tank. The bottom tank temperature was 71 Deg F and the TDS was 280. The PH was around 7.4. After a couple of days I tested the top tank and the temperature was 82 Deg F with TDS of 240 and PH of 7.5. Everything matched except for a much higher temperature.



Rio Negro

Rio Solimões

Photo credit: Terry Feuerborn



One of the plecos did not come out for a week. By looking in the cave I noticed that there were two in the cave- called trapping with plecos. This is when the male traps the female in the cave for a while until the eggs are deposited. This can last up to a week in some species but took the LDA001 about three days.



After spawning the male lets the female out and he takes over guarding the eggs.

After about 12 days the eggs start to hatch. After four days of beginning hatch the male kicked all the eggs out of the cave which I then placed in a breeder box. This first batch of eggs all hatched yielding a total of 8 fry.



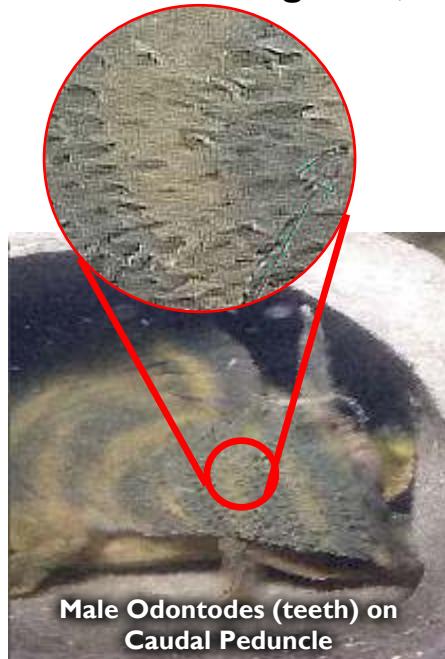
Later the male spawned again with a female which I had thought was a male. After a week with the new eggs, the male didn't kick any of them out and was still guarding them- they remained in the cave with the father. I am not sure how many survived out of that batch as the male kept the fry up in the cave so it was very hard to even see them.

When their yolk sac was completely absorbed, I started to feed the fry. I first tried Hikari carnivore wafers. The fry didn't even touch them and I had to remove them from the breeder box. The same with Marineland shrimp wafers, they

weren't touched either. So I gave them what the parents liked, just a piece of soft wood. I took a piece of root wood and placed it in the breeder box and the fry started to hang on it. The next day the breeder box was full of waste and I had to do a water change- now every day the box gets a water change.



Sexing L169, and many Loricarids



After a month, the fry started to look like the adults and began to develop their tiger pattern. After two months the bellies were nice and fat and the fry looked more and more like the adults.

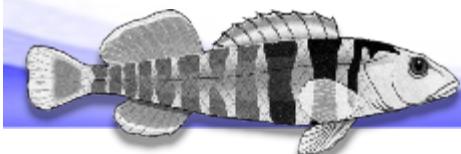
So what was the trigger to get them to spawn? I feel that the LDA001 coming from the junction of the rivers will take a wide range of water parameters but I also believe that cold water to hot water change caused the fish to spawn. Maybe in the wild the temperatures of the waters when they meet has something to do with it.

Sources:

<https://phrynum.wordpress.com/tag/humic-acid/>

<http://www.iflscience.com/environment/what-causes-brazil%20%99s-bizarre-meeting-waters>





Old Tricks from an Old Dog

About My Betta Tank

By Kathy Deutsch

WE WERE ONLINE, watching Mike Hellweg's excellent talk about wild Bettas and I commented in the chat that I cover my betta tank with plastic cross stitch material to keep the betta safe but let air and light get in. Melanie, said she was stealing the idea and if I have any knowledge about this crazy hobby, you are all welcome to it.

This article is about that betta tank, which has been set up since, I think, 2008.

The tank came with an integral filter, and an LED light. The filter has a sponge pad and some carbon in a sack. I rinse both a couple times a year, but:

Check the filter and water daily to be sure it smells and looks ok. The fastest way to detect a bacteria or fungal problem is by smell. Bettas hide. I cannot always see how he is acting, but a quick look at the water and filter (and a sniff), tells me a lot.

NOTE: the pump on this tank is almost too strong and the current can be so rapid the betta cannot grab any food or relax. I cannot emphasize this too much. Some bettas love the movement; others fade quickly. I lost a lovely betta because he could not grab a



© BettaSource

meal. He was shy and the moving water scared him.

When I do my daily check, before I feed, I unplug the filter and turn on the light. In the evening, I see the light, turn it off and plug in the filter. The betta has gone to bed, low in the tank under a plant, so the current swirling about him does not bother him.

The tank is situated smack on my kitchen counter. My criteria: stable temperature, some sunlight, and house activity. Bettas like watching the world go by. Show me a bored betta, and I bet he is ill. I also wanted to keep an eye on the fish, and putting him in my kitchen meant I would see him a couple times a day.

Stable temperature seems to be a key to betta happiness. I used a digital thermometer with a water probe to check the temp for a couple weeks. Right now, it fluctuates between 69 and 71 degrees Fahrenheit. In the summer, especially with the sun coming in, it will get to 72-75 F.

The bacteria bed is 1/2 inch of rounded pebbles. It is never disturbed. When I do a water change, I swirl up the water first, which dislodges gunk from the bed and scoop it out in a cup. There are 2 pieces of hardscape: a rock and a nice ledge. They too, are never disturbed unless I am doing a major

clean. Afterward, I put them back as they were.

Most fish need stability, guideposts and touchstones. My bettas have always liked having a rock to hide behind and a ledge to hide under. Most importantly, this area is out of the current and the light -even the sunlight. Most fish crave quiet times after meals and at night. I try to provide it.

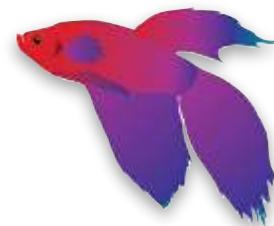
Live plants, in my opinion, are as essential as the water fish swim in. They provide cover, company, micro food (fish pick things off plants to eat), and improve water quality. I have a nice Anubias occupying the space by the rock. It's given a wash then snugged back into the rock substrate twice a year.

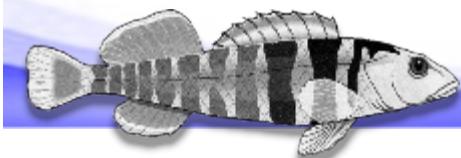
There is a sprig of Cabomba near the top where the betta looks for his pelleted food. The cabomba floats in the flow of the water, catching the pellets, bugs, etc. Great betta feeder.

Finally, I do cover my tank with plastic cross stitch material. It has a hole cut in it just about where the light shines down. I poke a spider plant into the hole, with its base just in the water to grow roots, where the betta loves to swim.

Most fish like plants and use them as feeding stations. They also hide in them or use them like hammocks. I check the plants in the tanks daily to make sure they are thriving and have good color. Emerged plants like my spider plant provide so much security to the fish that they are worth the work.

In describing my tank and how I keep it going, I have included some things I do to make fish care easier for the fish. I hope these little ideas help you as well.





Minifins

The Kuhli Loach

Pangio spp.

By Mike Hellweg, CFN
(Certifiable Fish Nut)

THE KUHLI LOACH has been a staple of the aquarium hobby for over a Century. Their wormlike bodies covered with alternating black and yellow bands (or black bands on a yellow body, if you prefer) and their ability to wiggle into tiny spaces to chase down morsels of food have endeared them to generations of hobbyists.

Kept in groups, they spend much of the day hiding in small caves or other hideaways, waiting for dusk. Then they pile out of their hideaway like clowns piling out of a clown car. The more, the merrier!

What we call Kuhli Loaches are actually a group of closely related, worm like fishes that are in the family Cobitidae. Formerly in the genus



Pangio sp. © 2006 Hakon



Pangio semicinctus

© Seriously Fish



Pangio myersi

© Seriously Fish

Acanthopthalmus which means "Spine Eye" - named for the spine under each eye that they can flick open in the literal blink of an eye and slash when they feel they are in danger - they are now assigned to the genus *Pangio*.

There are about two dozen species, with about six to eight of them that sometimes come in as *Pangio kuhlii*. This isn't an attempt to deceive, but rather illustrates the fact that many species are similarly patterned enough that they are easily confused. Often

with wild caught shipments you will actually get two or even three species mixed together, though lately most shipments that I've seen are of tiny tank raised specimens only a few months old. Almost always they are *Pangio semicinctus*, the half band Kuhli loach.

The next most frequently encountered is *Pangio myersi*, the giant Kuhli loach, though the term "giant" is relative - they're thicker bodied and maybe a half inch longer



Subocular spines of a Clown Loach



than most other species when they're full grown. In fact, it is likely that the true *Pangio kuhlii* has only rarely been imported, since it is restricted to the island of Java, where little commercial collecting is done.

To have the best chance at spawning them, purchase all of your Kuhli loaches at the same time from the same vendor - that way you'll have the best chance of getting all the same species. In earlier days I think the biggest impediment to spawning these fish was that people only bought one or two at a time, and may have actually mixed species when trying to increase group over time instead of all at once.

Kuhli vs. Coolie

The name "Kuhli" is derived from the name of the early 19th century German naturalist Heinrich Kuhl. Much like the genus name "Betta" has become "Beta", sometime in the early 20th century as the commercial part of the hobby was beginning the spelling "Kuhli" became "Coolie" out of ignorance, though most folks using the term today likely don't know they could be seen as offensive to some. You should be aware this is a racially derogatory term from British Colonial times. **Better left in the past, the use of Coolie should be strongly discouraged.**

Native Habitat

In the wild, Kuhli loaches are found in slow flowing streams, jungle swamps, oxbow lakes and similar bodies of water where there is plenty of cover. They are easily collected in large numbers with bamboo traps, so

they likely occur in large groups in the wild. The water is usually slightly acidic, full of decaying plant matter, and is very low in hardness. Often when they first arrive, they are thin and need a few weeks of heavy feeding to fatten them up a bit before they can go into a community tank.

Give them a Home

Almost all of the *Pangio* species like to live in groups and spend a lot of their day hiding in big tangled masses in caves or crevices, so be sure to give them a few caves to choose from. Even so, sometimes they will dig their own hideaway under rockwork, driftwood or even resin or ceramic ornaments.

I've found they really like to hide in the tangle of roots from Anubias plants that are attached to driftwood and similar features, and they also like to hide in the hollow center of Hydrosponge filters. When I used undergravel (UG) filters in most of my tanks, I kept a lot of Kuhli loaches, and a mass of them could



Kuhli stream in Batang, Indonesia

be found under most of the filters. I would occasionally see them out and about in the evening, but the easiest way to see them was to look up from below the tank!

Feeding

In the wild, Kuhli loaches eat insects, worms, crustaceans and similar fare. In our tanks they will eat flakes, pellets, frozen foods, and live foods with equal gusto. They seem to prefer smaller worms like Grindal worms and white worms, but they aren't too demanding. When work hours demanded I be away a lot, I've had groups of them subsist for long periods of time on nothing but pellets and flakes and be none the worse for it.

Breeding

Kuhli loaches live for about 5 to 6 years, and begin spawning when they are about a year to a year and a half of age. Well fed, healthy adult Kuhli loaches seem to spawn regularly, even in community tanks.

Purchase a group of one to two dozen juveniles all at the same time from the same source, and let them grow up together. You'll know they are ready to start spawning when you see



Ball of *Pangio maylayanus*



Female filled with eggs



adult females with swollen green bellies. This is the color of the eggs showing through their belly. If kept in the same tank and fed the same foods, you can assume the males are ready at the same time.

While tank mates are okay, once they are ready to start breeding tank mates will often consume the eggs, so it is best to keep the adults in a tank by themselves.

Set a tank up for spawning with floating plants like water sprite, Najas, hornwort or something similar and with a big bundle of Java moss near the bottom. I often also set it up on a sheet of plastic egg crate about an inch off the bottom to catch many of the eggs that miss the floating plants. Don't pack the tank too full of plants as the adults need room to swim both on the bottom and in the water column.

Continue to feed them heavily with meaty foods. Live Grindal worms or blackworms, frozen bloodworms and brine shrimp, and similar meaty food work best to condition them for spawning. Feed at least a couple times a day for a good week or so before attempting a spawn.

Once the adults are ready, wait until there is a storm front moving through, do a big water change, and wait. The adults can be seen racing up and down the sides of the tank in small groups or pairs.

Eventually, a pair will intertwine near the surface and start splashing across it. The first time I saw this was during a power outage after a storm, and I thought there was something wrong with the fish. It took a little while to figure out what they were doing! After a few false starts, eggs will appear with each encounter.

The eggs float for a few moments, then start sinking. It's a good idea to have some sort of plant matter, with roots, near the surface. Water sprite works well. The eggs will catch on the roots. There are other



contraptions you can make to keep the adults and the eggs separate, but the easiest way is to use a thicket of water sprite, Najas or hornwort floating in the tank as mentioned above. After the spawning event, in which several pairs might spawn at the same time, it is best to remove the adults, otherwise they will hunt and eat most of the eggs.

The fry will hatch in a few days, and can be seen as tiny wriggling

- **Set a tank up for spawning with floating plants.**
- **Feed adults heavily with meaty foods.**

slightly elongate tadpole-like creatures about a week after hatching. They will spend much of the first few weeks hiding in the Java moss, and are likely consuming the microfauna that lives there.

About day 4 after they hatch, start adding microworms or something similar. Be sure to harvest the microworms from both the side and the surface of the culture to get a variety of sizes from newborn to adult microworms. This will ensure that the baby loaches get enough food, regardless of how quickly they are growing. You can also add "sponge grunge" from the sponge filters from healthy tanks. This is covered with ciliates and rotifers, both of which are perfect foods for young loaches. Harvest from a different sponge filter for each feeding and there will be plenty for the first several days.

An easier way?

There are other ways to get them to spawn and successfully raise a few fry without as much work. My first luck with them spawning was when I was keeping fairly large groups of Kuhli loaches in 10 gallon tanks with UG filters and pea gravel substrates. With UG filters, you have to occasionally siphon the detritus from under the filter plate. In the Kuhli loach tanks, when I would do this, I would find both adults and youngsters under the filter plate! Apparently, there was plenty of food for the youngsters, plenty of

circulation, and enough places to hide from the adults.

The first time I found young Kuhli loaches I was shocked. But after a while, it became so commonplace that I pretty much expected it and was surprised when I didn't find young Kuhli loaches. I heard from several other hobbyists at the time that had similar success.

Recent changes in the way we filter tanks has seen the UG filter disappear, but all is not lost. The Hamburg Mattenfilter has become popular. Essentially it is a modification of the UG filter, turning an entire wall of the tank into a filter. Detritus piles up behind the filter plate and should be siphoned out on occasion.

Once while siphoning behind the Mattenfilter in my Giant Kuhli loach tank, I found young Kuhli loaches behind the Mattenfilter! For as long as I had that group of adults, every time I siphoned behind the Mattenfilter I found a couple dozen youngsters.



Tangle of 1.25" fry siphoned from behind the Mattenfilter

The Mattenfilter is covered with microscopic life, especially ciliates and rotifers, which along with good water circulation is exactly what the young loaches seem to need. I also let Java moss, Anubias, and Java fern grow on the surface of the Mattenfilter, creating a great, tangled web for catching eggs, too. It turns into the perfect spawning tank, and seems to separate the eggs/fry from the adults without my having to do anything. Give it a try!

Kuhli loaches and their cousins in the genus *Pangio* are fascinating aquarium residents. Once you learn their habits, even a tank with nothing but Kuhli loaches in it is an amazing thing to observe.

Don't forget to sit in front of the tank and spend time just watching your fish!





Hypsolebias mediopapillatus

“Pindias”

**by Joseph
Graffagnino**



**Reprinted
from:
Greater City
Aquarium
Society, New York, NY
(GCAS) Modern Aquarium
Newsletter
September 2020**

MY FRIEND HARRY Faustmann is my main contact for killifish, especially annuals. He contacted me that he had extra *Hypsolebias mediopapillatus* “Pindias” and asked if I wanted to try them.

I rarely turn Harry down, because his killies are spectacular. At the next Greater City Aquarium Society meeting he brought me a bag containing two pairs of these peat-spawning little beauties.

I took them home and placed them in a 10-gallon tank. The water temperature was 75 degrees with a pH of 6.5. I generally use wonton soup pint containers, but I thought this particular species would do better with a deeper pot and additional peat, so I exchanged the plastic container with a 6-inch flower pot. I fed the killies frozen bloodworms or live blackworms daily. I perform weekly water changes of 25%.

After a month I took the peat out of the clay pot, used newspaper to remove most of the wetness until the peat was just slightly moist. The peat moss should be moist enough to feel wet to the touch, but not wet enough to allow water to drip when squeezed. I



then placed the peat, hopefully with killi eggs in it, in a plastic fish bag. Many killi keepers use styrofoam boxes to hold the egg bags for consistency in temperature and humidity.

I labeled the name of the species and date collected, and stored it in a crawl space in my basement. This is the coolest part of the house, and it stays around 70 degrees Fahrenheit. This species requires a minimum of three months for the eggs to incubate and the embryos to mature.

I let them stay for four months, because previously I had tried to hatch the eggs in three months with poor results. On the fourth attempt at collecting the peat and storing the eggs it worked; previously nothing had hatched. When I added the peat to a small plastic container with water from the parents’ tank I saw 50-60 babies pop their heads up and swim within 24 hours.

It's important to get the babies out of the original peat they were hatched in, because if left in that environment they often get oodinium. The hobbyist can't see the oodinium on the babies because they are too small and the fry die off fast. Oodinium is a genus of parasitic dinoflagellates. Their hosts are saltwater and freshwater fish, causing a type of ‘velvet’ disease (also called gold dust disease). The host

typically develops a yellow or gold ‘dust’ scattered on its head, fins, and body. At this stage, the infestation is already severe.

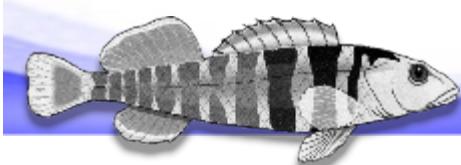
I moved the fry into a 10-gallon tank, half-filled with water from the parents’ tank. The aquarium was bare bottom with only a small sponge filter. The water temperature was 75 degrees Fahrenheit and the pH was 6.5. The fry were large enough to take newly hatched brine shrimp and frozen brine shrimp when live food was not available.

They grew quickly. Daily water changes of 10% kept down the nitrates and ammonia levels (from rotting food and fish waste). Frequent partial water changes enable killi babies to grow faster. After a few months I was able to share the babies with the other local clubs that I belong to. It's good to share your successful spawns.

The species *Hypsolebias mediopapillatus* was recently discovered by Costa in 2006 (as *Simpsonichthys mediopapillatus*). Costa renamed it *Hypsolebias mediopapillatus* in 2016. This species comes from northeastern Brazil and is found in the Rio Sao Domingos drainage.

If you are looking for a new annual “peat spawner” killi, I suggest you try these little beauties.





Breeding Japanese Medaka Ricefish

**a.k.a. The Easiest
BAP Points Ever!**

By Jill Bridges

Reprinted from:

**Atlanta Area Aquarium
Association
(AAAA) Fish Talk
Newsletter
June 2019**



SOME OF YOU may remember that I ended up with some tiny hitch hikers after the Fall 2018 AAAA auction.

For about two months, I had no idea what these little fish that hatched from some moss I bought could be. When blue eyes appeared around week six, I thought for sure I had lucked into some *Pseudomugil* fry, but some helpful rainbowfish experts correctly identified my half inch babies as ricefish. Since then, I've had excellent luck with raising more, and they have became one of my favorite fish.

Japanese Medaka Ricefish (*Oryzias Latipes*) are a nano fish that top out around an inch in length. They are one of the most commonly used fish in science, and have even successfully spawned in space!

The most popular variety are the orange medaka, with both males and females showing excellent coloring when mature. Sexing them is a bit difficult for me until the obvious eggs appear, but it seems that in my stock the males have slightly larger anal fins than the females. They spawn before



the fin comparison is possible, though, so it is best to keep a sizeable group together.

When ricefish spawn, the female expels the eggs on a sticky thread. They gather around her anal fin or trail behind her in a line. She'll carry them around for some time, until the point they get annoying, I imagine, then find a suitable clump of java moss, water lettuce roots or other suitable plant and wiggle between the fine leaves. As she does this, the eggs are transferred from her to the plant.

In my experience once the eggs are deposited, they are ignored by both males and females in the tank. The eggs take two full weeks to hatch. There are two methods that work equally well, and are a matter of personal preference. The more popular method is to move the adults from the tank and raise the fry in the spawning tank.

Because they are daily spawners and the fry grow very slowly, this means that you'd need quite a few tanks to maximize your results. Since I can't seem to keep a tank empty for long, I prefer the second method. I grow water lettuce and java moss in my other tanks, and on the 13th day I pull the egg covered plants and put them in a large pickle jar. I replace them with

new plants and moss, and keep the parents in place.

Older fry will torment younger fry, so until they are about a half of an inch long I keep the spawns separated. I currently keep both the orange and the "galaxy white" varieties, and have their plant rotation synched so that I can use less jars for grow out.

I feed the fry golden pearls and Repashy power (from the jar, not prepared as a gel) until they are big enough to accept microworms and baby brine shrimp, which is typically around 2-3 weeks of age.

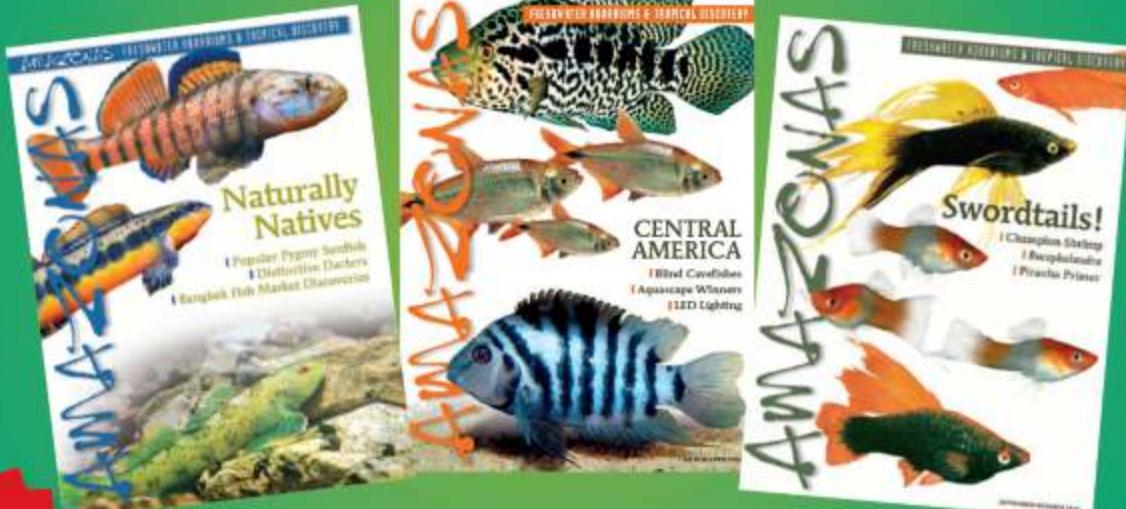
I do not use any heaters in my ricefish tanks or hatcheries. They do fine in my soft water, which is typically below 6.0, but seem to do fine in a variety of water types from the research I've done. I feed mine Hikari micro pellets as a staple food, and live BBS or daphnia as an occasional treat.

They don't need much in the way of filtration, and aren't messy fish. Frequent water changes and some plants and they are happy as can be. Other than moving plants from one tank to the next, they are completely hands off.

These have to be the most simple, no fuss BAP fish I've raised so far.



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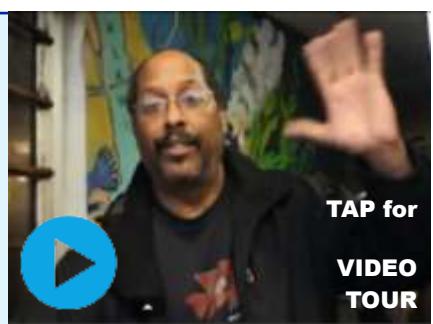


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HORTICULTURE AWARD PROGRAM - Mike Hellweg

November & December 2020



Member	Genus & Species	Common Name	Type	Points
Brian Woodrick 125 points				
	<i>Ceratophyllum demersum</i>	Hornwort	V	5
Chuck Bremer 1405 points				
	<i>Hymenocallis liriosome</i>	Texas Spider Lily	S	10
	<i>Vallisneria asiatica</i>	Jungle Val	IB	5

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



My experience with Hornwort- *Ceratophyllum demersum*:

I been growing plants in my aquariums for about 10 years now and never had grown hornwort before. So, when I got a small bag of Hornwort at one of the MASI meetings, I was curious to see how it would grow in my tanks. Looking back now, I think it has to be one of the easiest plants to grow.

I brought it home and left the bag on my desk for a few days before remembering that I had it. Because I was in a hurry, I just tossed it in a tank to float with intentions of planting it in the substrate when I had more time.

Fast forward a month later and it had grown enough to start crowding out the small 10-gallon tank!

I now have it in a couple different tanks and it provides great cover for small fry, but also grows so fast that I end up having to throw away large portions of it on a regular basis.

I have read that it inhibits algae growth, either through releasing some chemicals or just through absorbing excess nutrients. So, I'm just now starting an experiment with another tank that has algae to see if there is any improvement.

Brian Woodrick



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American Killifish Association 2021 Convention



**St. Louis, MO
June 11-13**

aka.org

Pic © Tony Terceira



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Petland	Lake St Louis, MO	(636) 685-2925
Malawi Aquatics	Florissant, MO	(314) 830-6460
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2021 EVENTS

- 3/18 MASI-Virtual Webinar St Louis, MO
4/15 MASI-Virtual Webinar St Louis, MO
4/23-25 NEC Virtual Convention
5/1 MASI-Spring Swap St Louis, MO
5/1 MASI-2021 Awards St Louis, MO
5/2 MASI-Spring Auction St Louis, MO
5/20 MASI-General Meeting St Louis, MO
6/11-13 AKA-Natl. Convention St Louis, MO
6/17 MASI-General Meeting St Louis, MO
7/15 MASI-General Meeting St Louis, MO
7/22-24 ACA-Natl. Convention St Louis, MO
8/8 MASI-Summer Auction St Louis, MO
8/19 MASI-General Meeting St Louis, MO
9/16 MASI-General Meeting St Louis, MO
9/19 MASI-Fall Swap St Louis, MO
10/8-10 Cataclysm Madison, WI
10/21 MASI-General Meeting St Louis, MO
11/7 MASI-Fall Auction St Louis, MO
11/18 MASI-General Meeting St Louis, MO
11/19-21 OCA Extravaganza
12/16 MASI-General Meeting St Louis, MO

2022

- 10/7-9/2022 AACC Catfish Convention
Herndon, VA

PLEASE CONFIRM



Nearby Clubs linked to their logo



Check events On-Line before driving long distances.

Many are switching to and from Virtual events or being canceled nearly daily, including MASI Events.

LOGOs click through to the entity represented.

Other links are on the MASI

[Linkpage](#).

Convention Logos Hotlinked!



Fishin' for Info?



Webinars/Meetings to Check

3/14 GCCA Sam Borstein - Fishes of the Tapahoney River

3/20 MAAH Christine Keys - Evolution of a Fish Room, The Adventurers of a Lazy Fishkeeper

4/1 CCAC John Krepper - Lake Tanganyika Feather fins and Sand Dwellers

4/1 MAS Common Sense Fish Health Management in the Home Aquarium

4/11 GCCA Joe Garfas - Whats new in the Aquarium Hobby

4/17 MAAH Ted Coletti - Take it Outside: Summer Tubs and Container Ponds for Breeding Fishes and Water Gardening

5/2 CLS Richard - Nguyen Fancy Livebearers

5/6 CCAC Lawrence Kent - Seeking Friends and Holy Grail Fish: Stories from Mauritania and Nigeria

5/6 MAS Paul Loiselle - The Killifish of Madagascar!

5/11 GSAS Dr. Rich Ross - Coral Spawning and Collecting

5/16 GCCA Scott DePalma - Fish Diseases and how to deal with them

6/3 MAS Jason Oneppo - Brine Shrimp

6/6 GCCA Chuck Rambo - the History of the Cichlid Hobby

6/8 GSAS Dr Ted Coletti - Backyard Ponds

5/15 MAAH Jim Cummings - The Cichlids of Madagascar: A Land in Crisis

6/19 MAAH Preston John - Puffer Fish

8/21 MAAH Rich Birely - Fishrooms - Big and Small

Check Provided Logos for Details

Check listings of currently scheduled topics that catch your interest by clicking on the Organization's Logo for their web site.

AMAZONAS also keeps a list of upcoming events that may be more current. Their link explores that list.

AMAZONAS
Events Calendar



AKA 2021 National Convention

June 10-13 - St Louis, MO

American Killifish Association Convention 2020 - June 10 through June 13, 2021 at the Holiday Inn St. Louis, Airport West. This AKA Convention is being co-sponsored by the St. Louis Area Killifish Association (SLAKA) and the Missouri Aquarium Society (MASI).

Friday Show Set-Up

Saturday Speakers:

Christophe Aubin - Bordeaux, France - traveled, photographed and collected killifish and other fish in Cameroon and Congo. He has spoken to aquarium clubs throughout Europe about his collecting experiences and the fish hobby. See some of his photos at <https://www.stofmania.com/>

Donald Taphorn, PhD - lived nearly 30 years in Venezuela, where he collected and studied annual killifish. Dr. Taphorn will present the annual killifish of Venezuela, including his collecting work with the late Professor Jamie Thomerson in the Orinoco. His time in Venezuela was spent at UNELLEZ (the University of the Western Llanos), where he founded a Natural History Museum and Fish Collection- one of the finest in South America, fully computerized with almost 50,000 catalogued lots.

Richard Pierce, PhD - Massachusetts - a marine biologist who has studied and collected killifish for many years. Rich will be presenting a program on the Lampeye group with some great information on this unique and beautiful group of killifish.

Dave Hemmerlein - SW Michigan - long time member of the AKA and NANFA, and an experienced collector of native North American fishes including native killifish. Dave will present on collecting native fishes in the southeastern United States.

Glen Collier, PhD - Tulsa, OK - A charter member of the AKA while in high school. Subsequently, he earned his Ph.D. at Cornell. He then served as a faculty member of the Department of Biological Sciences at Illinois State University when he chaired the Department of Biological Science at the University of Tulsa- now Professor Emeritus. Research includes the development of a comprehensive molecular phylogeny for fishes of the Cyprinodontidae. He has published his work in numerous professional scientific and hobby journals and is a past editor of JAKA and frequent contributor.

Saturday's Special

Sale: Combo Rare Fish & Rented Table Sale. See website for details. Buyer's Access based on Convention registration number. Convention handles transactions and all sales from rented tables go to the sellers.



Saturday Banquet and Awards Program

Sunday Auction: 11 A.M.

Monday Activities Planned for those who choose to stay another day .

Collecting trip to the Missouri Ozarks, home to a large number of freshwater species including killifish, darters, minnows, dace and catfish.

Tour of Newly Opened St. Louis Aquarium - promised to be another great experience.



Registration for AKA Convention 2020
opens January 1, 2020 on line at
<http://aka.org/>

Jack Heller & Mike Hellweg - Co-Convention Chairs

Emails: HellerJackL@aol.com
&mike@minifins.com



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Speaker Lineup:

Christophe



Donald



Richard



Dave



Glen



Enjoy the 2021 American Cichlid Association Convention in St Louis, MO, July 23-25!

Cichlid enthusiasts of all ages and experience will be there for all things Cichlid, fishy talk and fellowship and have access to world class speakers, manufacturer & vendor booths, an ACA hospitality suite and fish being sold throughout the event.

Everyone is bringing their newest acquisitions, spawned and ready to distribute! Party with your Buddies and go home with new fish!

This event features a slate of 5 special speakers, an extra special vendor room, a tank rental room and a hopping hospitality room. Attendee room sales, found throughout the venue, will be intense. The ACA will not have a Show but the Convention will finish with a large Cichlid only auction!



In 2021 make up for staying at home in 2020!

<https://convention.cichlid.org/>

Use the convention website for Convention & Vendor registration, additional details and offers.

- **Rusty Wessel** - Rusty speaks about the Central American Fishes he successfully collected in Belize, Costa Rica, Cuba, Guatemala, Honduras, Panama, Mexico and Uruguay.
- **Pam Chin** - Shares stories and videos about Cichlid Safaris to both Lake Malawi and Lake Tanganyika. She is a founding member of "Babes In The Cichlid Hobby" whose goal is to make a difference in cichlid keeping.
- **Steve Edie** - Banquet Keynote Speaker, believes that attending conventions all over the US is one of the best means of finding friends, information, and rare species and plans to make Conventions fun for all with "The Talk".
- **Dave Schumacher** - Speaking nationally about basic cichlid genetics and nomenclature, in 2006 Dave bought a fish store and turned it into the Dave's Rare Aquarium Fish specialty store, currently, selling more than 200 cichlid species.
- **Don Danko** - Don has collected extensively throughout Mexico on more than a dozen visits. An accomplished photographer, he has gathered an extensive collection of award winning cichlid photos.



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Items also Change Constantly on [BAND.us/@MASIswap!](https://band.us/@MASIswap)

- **MASI BAND Swap page** - <https://band.us/@masiswap> - Because of nefarious activity by non-identified attackers, this is now a CLOSED Group specifically for discussion and posting about upcoming MASI SWAPS and other sales efforts by members or others with approval on BAND. Post any sales, re-homes or other livestock exchanges here. Do NOT post these to FaceBook.
- **Those wishing to join** will need to register with BAND, and then ask the moderator to join the group. It's not hard, it's just a name, email or phone #, a confirmation text or email. Then request to join, answer all 3 simple questions that are set up, then once the Moderator approves them, you are in.



See a Tank you might like? Many remained after the **MASI Parking Lot Swaps** and are available for \$0.50 per gallon, some stands also available. We have these and 60 more tanks from another donation to move! All were also available at the Sept. 13th Swap.

Contact **Pat Tosie** for a listing and to make arrangements to purchase.

- Email: PatTosie@yahoo.com



Member	For Sale	Bid/Asked	Contact
Charles Harrison	Thiosulfate crystals (Chlorine Remover) - pound OTO double strength Chlorine/Chloramine test kits - 4 ounce Flubendazole, 10% powder 25 grams Lavamisole HCl Powder - 5 grams treats 100 gallons Methylene Blue 5% solution (4 ounces) Acriflavine Concentrate (4%) solution, 2 ounces Bromthymol Blue pH test solution, 4 ounces	\$4.00 \$12.50 \$20.00 \$10.00 \$12.75 \$12.70 \$7.00	(314) 849-9761 charles@inkmkr.com
Mike Hellweg MiniFins	General Aquarium Support: Dechlor, Coconut Caves, Flake Foods, Plants & Custom Fish Orders	Contact for Pricing	Email: Mike@Minifins.com
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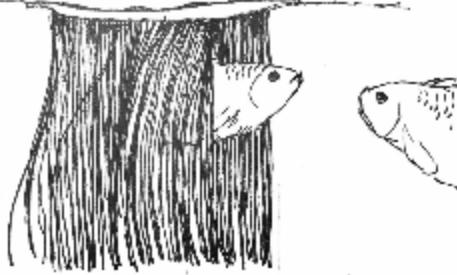
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**American Cichlid Association
2021 Convention**



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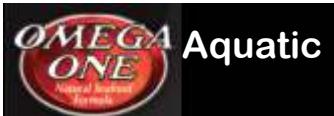
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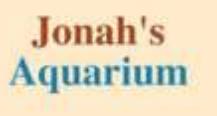
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