

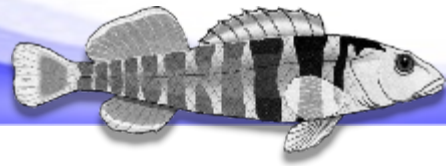
V46#5



The
DARTER

September/October 2020

B&W Printed \$5 Members / \$7 Non-members



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THE DARTER

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Failure to receive three consecutive issues of a society's publication may be considered as a termination of our exchange, unless advised to the contrary. Send electronic versions to Editor@missouriaquariumsociety.com & Exchange@missouriaquariumsociety.com

MEMBERSHIP

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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.

EDITOR Chuck Bremer editor@missouriaquariumsociety.com www.missouriaquariumsociety.com

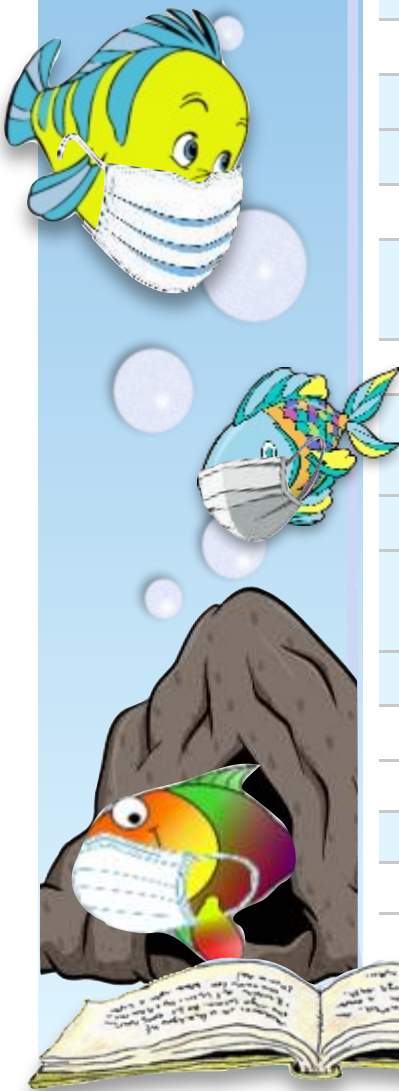


Cover - Feeding Frenzy - Gary Lange



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or
Sunset?**



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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

You got a ticket for each bag brought then we had a drawing and pulled tickets. When your ticket was pulled, you got to pick a bag. You must bring a bag to get a ticket. No money was exchanged. There was a limit of 10 bags.

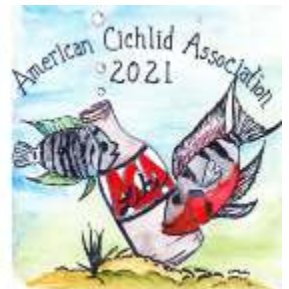
It's that time of year when NORMALLY the fish hobby gets very active with shows, swap meets and auctions. This year is different for obvious reasons, but we are starting to see some activities getting scheduled.

The first Bag Swap was such a success that we had to do it again! We had our second MEMBERS ONLY bag swap This Sunday, September 13 where MEMBERS brought their BAP and HAP (possibly a few other fish, pairs or groups).

We have it!! We recently received approval to host the 2021 American Cichlid Association Convention!!! To be held July 23 - 25, 2021 at the Holiday Inn Airport in Earth City. It will have 5 world class speakers with numerous talks, a Giant Cichlid Auction, Manufacturers, Vendors and lots of fish talk with people from all over the United States and beyond! You won't want to miss it. If you want to be involved and get to know cichlid people, working the convention is a great way to do it, just let me know to volunteer.

There still is no date set up for our next face to face monthly meeting, however we now have a **YouTube channel and Jake Harris has started doing some fish room tours** and monthly programs and if you haven't seen them, you need to! Jake does a fantastic job.

Here are some ideas of an ACA Convention logo, what do you think? Do you have a favorite?? Let me know. Check out the Website in progress: <https://convention.cichlid.org/>



Keep looking below water....

Chuck Bremer

FROM THE EDITOR

This has been n interesting Darter issue to put together. It's hard to tell which affected it the most the doldrums of summer or the impact of COVID. Things just aren't stable yet and keep changing as we try to 2nd guess when in-person activities can resume.

Over the summer MASI has begun to do many things in new ways. To name a few:

- We have begun Council meetings on ZOOM
 - We now have our own YouTube Channel
 - We have had our first on-line Webinar
 - We have dabbled in the world of Virtual Bowl Shows
 - We have had a two contact-less Parking Lot Swaps
 - We've learned how to manage the HAP program electronically- **and have 7 pages of results in this Darter that illustrate that**
- Many programs are more ad-hoc rather than fitting a yearly schedule



Some of these will probably "stick" and some not after things change again over the Fall and Winter.

Which do you want to keep? Let the Council know!!

Content deadline for the Final Darter of 2020 is November 9th.

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



MASI New Memberships for 2020!

Stephanie Guyot

O'Fallon, MO

Craig Lester

Herrin, IL

Michael O'Donnell

Saint Louis, MO

Cheri & Ryan Reasoner

St Charles, MO

Jason Wack

Saint Louis, MO

**New Members
since the July
Darter!**



Say **“Hello”** to new members and make them feel at home. Ask them their experiences and opinions.

Make them feel welcome! New Members bring interesting ideas that may help improve the club and make it more relevant for all.

Help these Folks get involved and you continue to improve the club!

Also **NEW**: Check out MASI's Presence

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

You'll go there to hear Karen Randall discuss the Plants of Borneo this month.



MASI Member Spotlight: Charles Harrison

209 views • 1 week ago



MASI Member Spotlight: Steve Coxon's fishroom/fish...

998 views • 1 month ago



MASI July Swap PLUS Jerry Jost Corydoras fishroom

205 views • 1 month ago



MASI collecting trip 2020 - JACKPOT!!

97 views • 2 months ago

Jake's current plan is to post about one video per week! He would be glad to give other members a chance to see your Fish Tanks. Just let him know.

There are many MASI (unrelated) Youtube channels out there but Google knows our site by this long URL:
<https://www.youtube.com/channel/UCv7e0n-2M7w1qeowV4WI17g>

But go there much more easily by just using this easier to remember one:

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

Btw, these thumbnails are also linked to the channel!!



MASI General Meeting FREE Webinar: 7:30 PM CT, Thurs, September 17th, 2020!!



Karen Randall: Sarawak, Borneo, Beautiful Land of Disappearing Species

Growing up with aquariums as a child, as an adult her focus is planted display aquariums and the study and propagation of aquatic plants.

Author of "Sunken Gardens" in Aquarium Fish Magazine, past president of the Boston Aquarium Society, on the board of the Aquatic Gardeners Association, editor of the AGA magazine and now technical editor, she is a judge for both the AGA International Aquascaping Contest and the Aqua Design Amano International Aquatic Plants Layout Contests.

Karen studies aquatic plants in the wild and has traveled extensively in South and Central America, South East Asia and the southern U.S. and has assisted with Project Piaba.

This program details one of her trips to Borneo with Aquatic Plant Author Christel Kasselmann on an extensive collecting trip hunting rare *Cryptocoryne*, *Bucephalandra* and many other plant and animal species in their native habitats.



MASI
You Tube
Channel
[Tinyurl.com/MASI-video](https://www.tinyurl.com/MASI-video)



**Webinar replacement program for
currently suspended Face-to-Face meetings**



2019 Rewards on November 14, 2020

Banquet & Awards!



Holiday Inn

AIRPORT WEST, EARTH CITY
3400 RIDER TRAIL SOUTH
ST. LOUIS, MO 63045
1 314 2916800

MO-141, N of I-70



**Italian Themed
Awards Banquet
on Saturday,
Nov. 14, 2020
6 PM Seating**

MASI Members \$35/plate
Pre-Register w Chris
Mohrle -
propagationaquatics@gmail.com

Awards to be Presented:

**Aquatic Horticultural Awards
Breeder's Award Program
Hobbyist Society Service Award
Hobbyist Show Champion
Ralph Wilhelm Writer of the Year
Jim Miller Presidential Award**

**Followed by the Fish
Bucks Rewards Auction!**

**Spend Your Fish Buck
Rewards (FB\$)!!**

**This Evening includes the Annual Fish Bucks
Reward Auction for MASI Members.**

There is no Cash used for this auction, all bidding will be using the FB\$ activity rewards accumulated throughout 2019.

If you were a member in 2019 you will receive at least FB\$200 just for showing up!!

Everyone has accumulated FB\$ to spend at this auction. You get FB\$100 at the door and 2019 members start with an additional minimum FB\$100 from 2019 activities.

**All members share in the additional distribution of
FB\$ from Club Activities:**

FB\$20,000 were rewarded during the year for participation and volunteer work at MASI club activities, such as our Swaps, Quarterly Auctions, Speaker Programs, etc. Each active MASI member received these.

FB\$ were also rewarded for:

BAP (FB\$2500 total)

HAP (FB\$600)

And Superbowl (FB\$3100) in 2019.

There will be prizes available for purchase during the FB\$ Auction to Reward your participation in MASI Activities throughout the year. The Council will be purchasing \$500 of Aquarium Hobby items including various items of hardware and specially purchased fish. In addition are donated items from sponsors and members of aquarium inhabitants, gift certificates, equipment and tools!!

**Pre-Registration Required
for all Events!**



**How will
you spend
your FB\$?**





Annual Awards Banquet with Fish Bucks Auction - Chris Mohrle



Come Join us!! This year the Banquet will be an Italian themed dinner!!

All Events at the Holiday Inn, Airport West; 3400 Rider Trail S, Earth City, MO 63045

Attend the Awards Banquet for a subsidized cost of \$35.00 per person. Be sure to reserve a place by contacting me, the Spring Show Chairman, Chris Mohrle, at propagationaquatics@gmail.com or TEXT 314-541-3847 (evenings please). At the latest you may sign up and pay by November 7th. If you need to, contact me and we can arrange payment methods.

The banquet begins at 6:00 P.M. and ends roughly around 7:30.

The meal this year will be served Buffet style with an Italian Theme. Other offerings will be available for those who prefer.

Immediately after the Banquet the 2019 Awards, listed elsewhere, will be presented.

Entertainment: Fish Bucks Auction!!

The Fish Buck auction will be held directly after the Awards. We hope to be ready for it by about 8:00.

Come spend the fish bucks you have accumulated all year!!! Yes, Everyone has some to spend!! Every MASI event you attend, monthly bowl show entered or other event you helped with earned you free Fish Buck Rewards to use at this once a year Fish Bucks Rewards Auction!!

You can attend the FB\$ Auction without attending the banquet but please give those at the banquet time to enjoy their meal. Non-banquet attendees enter at 7:30.



2019 MASI Awards Night - Pre-Reservation Reminder
Dinner at 6:00 PM, Auction at 7:30 PM, Saturday, November 14th, 2020
Contact Chris Mohrle: PropagationAquatics@gmail.com or CALL/TEXT 314-541-3847 evenings

Reservation Name: _____

Total No: _____

Number Banquets: _____

X \$35 =

\$ _____

Pre-Registration REQUIRED for either Banquet, Awards or Fish Bucks Auction to plan overall COVID Social Distancing - Thanks for your Understanding.





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.

Next Executive Council Meetings:
September 24, 7:30 PM on ZOOM
October 22, 7:30 PM on ZOOM
November 23, 7:30 PM on Zoom

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 they are 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

6/18/20



Pat Tosie called the meeting to order on Zoom at 7:09. Present were Gary Lange, Jack Heller, Angela Hellweg, Ian Eggert, Charles Harrison, Melanie Holmes, Mike Huber, Holly Paoni, Caleb Pittman, Mike Hellweg, and Chuck Bremer.

ANNOUNCEMENTS

- The next Council meeting will be July 23 on Zoom.
- The 2020 Banquet and Awards dinner is Nov 14.
- The 2021 AKA convention will be June 10-13 at the Holiday Inn West.
- The 2021 ACA convention will be July 22-25 at the Holiday Inn West.

REPORTS

- **SECRETARY:** Angela read the Minutes from the May meeting. A motion to approve the amended Minutes was made by Charles Harrison and was seconded by Chuck Bremer. 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 July 7. The Darter will be send out on July 13.
- **BOWL SHOW:** There are 2 entries so far for the online bowl show. The deadline is June 25.
- **LIBRARIAN:** Mike Huber is still working on a list of all the books in the MASI library.
- **SPEAKERS:** Gary is still working on setting up speakers to be streamed online and plans to use Streamyard as a platform.

OLD BUSINESS

- 2020 MASI memberships are being extended through 2021. Get the word out!
- Officers and Council member terms are extended through 2021. Pat has appointed Jake Harris to fill Melanie Holmes position. Someone to take over points tabulating is still needed.

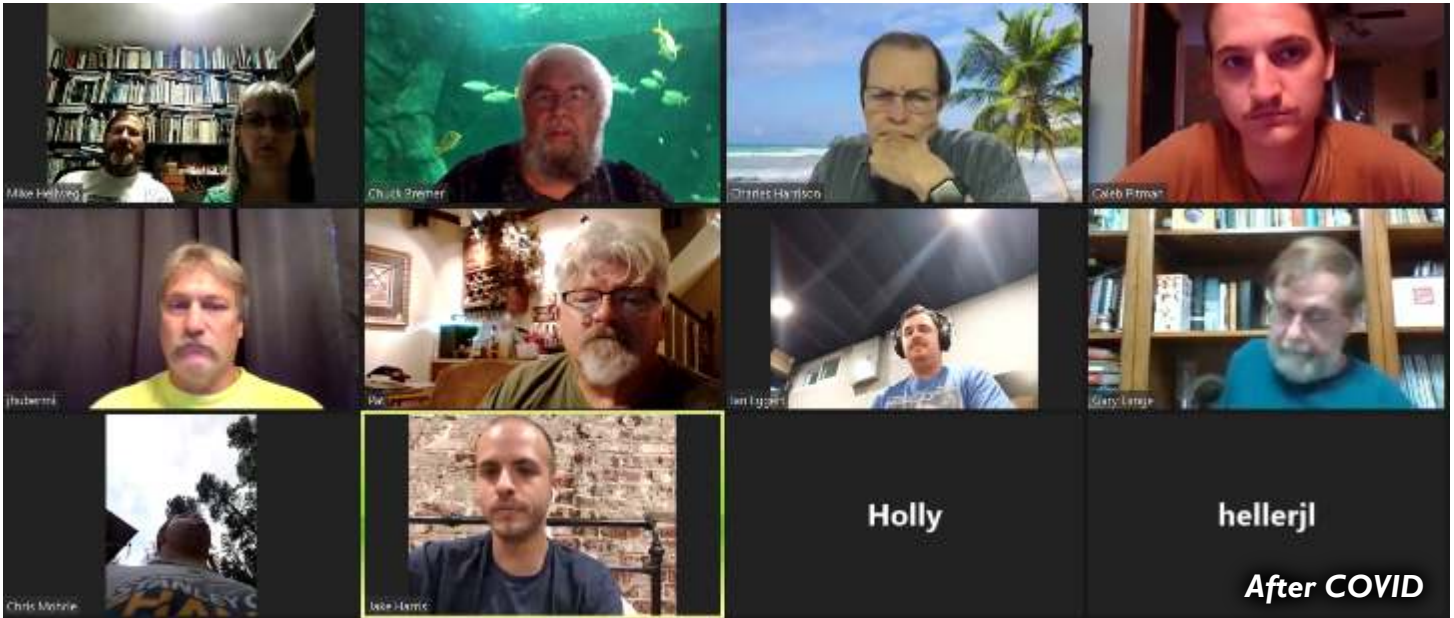
NEW BUSINESS

- No rule changes are being made for the BAP at this time.
- A member only bag swap will be on July 12 at Jost Chemical parking lot. No money will be changing hands.
- It is hoped to have a face to face General meeting on Aug 20 if it is allowed by the church.

A motion to adjourn at 8:03 was made by Mike Hellweg and was seconded by Charles Harrison. The motion passed.

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





COUNCIL MEETING

7/24/20

Pat Tosie called the Zoom meeting to order at 7:18. Present were Gary Lange, Jack Heller, Angela Hellweg, Ian Eggert, Charles Harrison, Jake Harris, Mike Huber, Holly Paoni, Caleb Pittman, Mike Hellweg, Chuck Bremer, and Chris Mohrle.

ANNOUNCEMENTS

- The next Council meeting is Aug 27 on Zoom.

REPORTS

- **SECRETARY:** Angela read the Minutes from the June meeting. A motion to approve was made by Charles Harrison and was seconded by Chuck Bremer. The motion passed.

- **TREASURER:** Chuck read the Treasurer's report. A motion to approve the amended report was made by Mike Hellweg and was seconded by Ian Eggert. The motion passed.
- **EDITOR:** The deadline for Darter submissions is Sep 8, and it will be sent out on Sep 14.
- **ACA COVENTION:** Pat said the ACA BOT still need to approve the plans to hold the convention in St Louis in July 2021.
- **AKA CONVENTION:** Jack said that speakers are being lined up.
- **SOCIAL MEDIA:** MASI now has a YouTube channel.
- **SWAP:** The September Swap is on hold for now.

OLD BUSINESS

- The 2020 MASI Challenge has raised \$816.00 so far.
- The MASI members only bag swap went well and plans are being made to hold another one in Sep.
- Kevin Wise is the new points tabulator.

NEW BUSINESS

- Jake needs volunteers to be interviewed for our YouTube channel. He would like to post something weekly.
- A motion to cancel the Aug 9 Auction was made by Mike Hellweg and was seconded by Charles Harrison. The motion passed.

A motion to adjourn at 8:35 was made by Charles Harrison and was seconded by Mike Hellweg. The motion passed.

Parking Lot BAP/HAP Swap September 13th

The Parking Lot BAP/HAP Swap on September 13 went well. There were approximately 40 MASI members attending and together they exchanged 175 bags of fish and plants. The Swap generated 55 new BAP submissions and 18 new HAP submissions as the summer's bounty was redistributed throughout the club.

Setup began at 9:00 AM and the raffle began at 10:00 and ended about 11:00 AM. Everyone made it home to dinner and out to their other Sunday commitments in good time.

Hope you enjoyed yourself and got some good fish or plants!





EXCHANGE EDITOR'S CORNER

Kathy Deutsch- Fish Whisperer

It is always eye opening to see the continuing quality of the exchanges with other clubs. MASI gets its share of reprints, no doubt. But every exchange I see is at least entertaining and colorful.

Contact me if there is an article you would like to read.

🐟 Youngstown Area Tropical Fish Society (YATFS) July 2020

by Marie Williams. A truly unique article about sourcing fishy themed (and just about any other odd themed) fabric. Axlotl fabric!

🐟 Raleigh Aquarium Society (RAS) August 2020

There is no new original content. HOWEVER, the magazine is chock-full of reprints, vintage articles, and info from a wide variety of sources. Info on hellbenders and axlotls.

🐟 RAS September 2020

Again, no new content, but a plethora of info from various sources on crabs, lobsters, etc. Recipes are always included in the information.

🐟 Eastern Iowa Aquarium Association (EIAA) September 2020

There are some photos from the recent derecho storm event.

🐟 Greater City Aquarium Society (GCAS)-New York September 2020

by Jules Birnbaum "My Shell Dwellers from Lake Tanganyika" I enjoyed this comprehensive article about shellies. I have kept them, and this article makes me want to try them again.

Stephen Sica "My Damsel Distress" A photographer, trying to capture the beauty of Florida marine fish. Full of ID information.

Joseph Graffagnino "Hypsoblebias mediopapillatus 'Pindias'" A very cool peat-spawning killie. Good article about these fish.

🐟 Greater Seattle Aquarium Society (GSAS) September 2020

Alexander Williamson "Spawning Corydoras venezuelanus" short article full of useful knowledge. The claim is they have a quirky personality, so now I am intrigued.



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

SEPTEMBER -

- 🐟 **Class A**- New World Cichlids
- 🐟 **Class B - OPEN CLASS** -(enter whatever you'd wish that's aquarium hobby related.)
- 🐟

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



MASI 2020 Challenge Extended through 2020 & 2021!!



Conservation Fisheries, Inc.

By Jack Heller

CONSERVATION FISHERIES, INC. which is the focus of this year's MASI challenge, is a non-profit organization located in Knoxville, Tennessee.

Founded in 1986, CFI's mission is to preserve aquatic biodiversity in streams and rivers in the U.S. CFI has developed techniques to propagate more than 65 species of nongame fish, including some of the most imperiled species in the southeastern United States. CFI works to restore fish populations that have been decimated due to pollution or habitat destruction. The organization also 's re-produces many rare or difficult to collect species for other purposes related to aquatic conservation.

Among the groups of fish that CSI works to conserve, propagate and release into the wild are darters, madtoms, shiners, dace, chubs, and *Fundulus* (killifish).

About ten years ago, I traveled to the mountains outside of Knoxville to assist my friend, Dr. Nevin Aspinwall, a professor of biology at St. Louis University, to collect Longnose Suckers for genetic studies at

the university. We were actually interested in collecting the eggs and milt, fertilizing the eggs in petri dishes, and returning to fish to the stream.

After a successful morning of fishing, we carefully stored the eggs and then drove into Knoxville to visit CSI and see their operation. We found CSI in a large warehouse on Division Street in Knoxville and two very friendly young researches who showed us around and explained their mission.

The fish were kept in large, shallow tanks with chilled water and water jets to keep to water circulating and imitate the environments of fast-moving mountain and lowland streams. The variety of darters, madtoms shiners and chubs was amazing, and the breeding colors on some of the darters were some of the most spectacular that I have ever seen.

I spent most of my time looking at tanks of native fish that I had never before seen, while Nevin discussed some of the more technical aspects of conservation and biology and gave the two biologists advice on artificial propagation, a topic that they appeared especially anxious to discuss.

Some years later, I received a call from Nevin after he had retired from SLU and moved to Ocean Shores, Washington, and among other things, we discussed our visit to Knoxville and our time at CFI. He advised me that they had grown since we had been there, and were becoming quite well known for their conservation work in the southeastern U.S. That is why I was very pleased to hear when MASI decided to raise money for CFI for their 2020 MASI Challenge program. If you would like to know more about



Conservation Fisheries, Inc., go to www.conservationfisheries.org.

For an extensive list of fish that CFI has worked with or is currently working with, go on their web site. You will be amazed at the number of species that they have worked with are currently working with. If you click on one of these species, you will bring up an image of the fish and a great deal of detail about the fish and its current status.

I Challenge MASI to help support this worthy entity as they support our native fishes!!

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Noturus furiosus | Carolina Madtom

This boldly patterned Carolina Madtom, *Noturus furiosus*, is endemic only to the Tar River and Neuse River systems in NC. Starting in 2018 CFI started housing both populations in hopes of establishing captive rearing protocols as well as creating an ark population. Throughout its range, the Carolina Madtom's distribution has become fragmented and reduced by dams and urbanization. Recent survey efforts in the upper Neuse River Basin indicate that this population may warrant a more critical listing than "Special Concern" within North Carolina. The Carolina Madtom has been proposed as an Endangered Species Federally in 2019.



Photo Credit to USFWS.

Chrosomus saylora | Laurel Dace



The Laurel Dace was listed as a federal candidate species in 2007. It is a rare minnow known only from three independent systems on the Walden Ridge section of the Cumberland Plateau, including Soddy Creek, Sale Creek, and Piney River. The primary threats to the Laurel Dace stem from impacts to riparian and instream habitat resulting from incompatible land uses. The riparian habitats associated with some

streams occupied by Laurel Dace have been affected by extensive timber removal activities on Walden Ridge in their vicinity; these activities often do not employ adequate streamside management zones or best management practices for road construction. Proposed projects, including installation of a water line that would cross occupied streams and construction of an impoundment on a tributary to an occupied stream, present additional direct and indirect threats to laurel dace habitat in the headwaters of Sale and Soddy creeks. We believe that the threat of habitat degradation from siltation across the range of Laurel Dace and the localized threats facing populations in Sale and Soddy creeks combined with vulnerable status of the populations in Soddy and Sale creeks constitute threats collectively of high magnitude, but are nonimminent.

Someone studying this before it was described brought us several eggs. We were able to hatch and rear them, contributing to understanding the early life history of these beautiful dace. We hope to do more work with this species in the near future.





MASI AUCTION MESSAGE

Mike Hellweg

mask whenever inside the building. The auctioneers can remove them while auctioneering, but that's it. Away from the podium, they will have to wear one, too.

If you don't want to wear a mask, that's fine, but please don't bother coming. No argument, no discussion, no excuses. We will simply ask you to leave, and will not accept your items for sale. The mask is not to protect you, it is to protect everyone around you. Obviously, if you don't feel well, please don't come.

Also, due to COVID 19 restrictions, the room will be laid out differently with more space between rows, and no tables in the room. By law, capacity will be limited to we're not sure how many right now. We'll know more as we get closer, so again, watch for updates.

Members may begin registering as sellers on October 18th at 12:01 am, and seller registration will be open to all on October 25th at 12:01 am.

Of course, all of this is pending no further worsening of COVID 19 in our area. As I said last time - in the meantime stay in your fishroom, change lots of water, and if you go out, wear a mask!

Remember, no Styros at all, no Crayfish at all. Watch the Facebook page, Band page, website and your email for updates as we get closer.

As always, the hotel will have lunches available. Hopefully we'll all be able to get together!



And for now, 'nuff said,

Mike

auction@missouriaquariumsociety.com

Okay, let's try this again. Hopefully we'll be able to have the annual Fall Auction on November 8, 2020 as planned. Watch our webpage and social media to see how things go as we get closer.

Remember, due to COVID 19, until further notice, as a courtesy to fellow members, **ALL auction attendees and workers will be REQUIRED to wear a**



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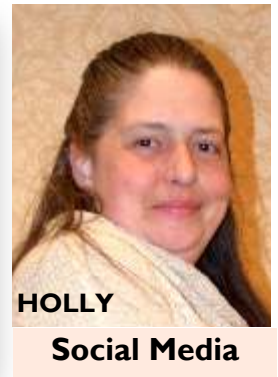




CHRIS

Bowl Show

The Missouri Aquarium Society's NEW Virtual Bowl Show July & August, 2020 Winners!



HOLLY

Social Media

propagationaquatics@gmail.com

hpaoni@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!

July Bowl Show Winners ARE -

Class A - Catfish (other than cories) :

- 3. *Synodontis eupterus* - Olivia Gorushi
- 2. Bristlenose - Steve Coxon & **People's Choice**
- 1. **Green Phantom** - Patrick A Tosie Sr.



Class B - Ponds/ Water Gardens ;

- 3. Tubs - Steve Coxon
- 2. Koi Pond - Matt Seggerman
- 1. Kiddy Hippo pool turned pond - Daniell Grush

CONGRATS TO EVERYONE !!



August Below



August Show:

Class B- Tubs, Containers & Ponds

Single Entry - Guppy Tub - Jake Harris - **Peoples' Choice**

Each entry earns 1 Fishy Buck.
3rd Place gets 3 bucks,
2nd place gets 4,
First Place and peoples choice get 5 fishy bucks.

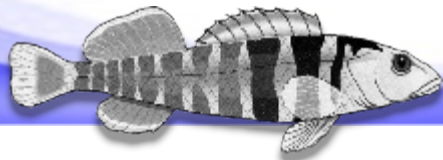
Anyone can have 5 entries per month...
So start collecting those fishy bucks, for our awards banquet fishy buck auction.

Get those entries in. ;-)



Other Catfish Photos!





The DARTER

This time has also been especially difficult for most of the Local Fish Shops (LFS). Please be cognizant of their plight and patronize them when you can. Many of them are keeping store hours or offering on-line or by phone ordering with curbside pick up.

All ads have the LFS' phone numbers listed. Call them or visit their web sites when you need something and find out how to make the transaction happen.



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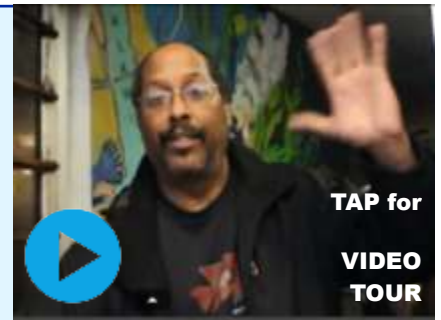


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The Fish Tank Things I Wish I had Thought of:

LOCATION, LOCATION, LOCATION

By Kathy Deutsch

THE WORLD MAY be different than it was this time last year. But some things never change, and my ability to mess up is sadly, unchanged.

I was thinking the other day that I dearly wished my common sense kicked in more often. My over 50 years in the fishkeeping hobby has allowed me to screw up in many different and ingenious ways.

People keep fish for many reasons. Some of us just love fish. They fascinate me. They were an excellent baby-entertainer when my kids were small. They drew our blended family together; the fish were something we could all talk about in a friendly manner.

Other folks like the plants, the aquascaping aspect- for some especially landscaped tanks, the fish are a secondary consideration to the overall look. Species tanks for observation, biotope tanks that mimic the wild, there are many reasons to keep a big box of water in the house. What all the justifications, reasons, explanations have in common is success. We want success with the hobby.

Placing the fish tank in the right spot is the foremost consideration. Before tank size, before tank residents, the ability to place the



tank correctly is THE measure of potential success. Like it or not, we are the caretakers of the fish and we largely determine their fate. And it is up to us to keep the fish comfortable. They need clean water at a temperature and condition they can tolerate.

The easiest way to meet the fish (and plants) needs is through water changes. Water goes in & water goes out. Think about how water is going in: via hose or bucket. For a 10 gallon tank, doing a weekly 2 gallon water change means towels, a bucket, a siphon and patience. That tank could go anywhere.



As the tank size goes up, the potential for disaster goes up accordingly. Some of us place our big tanks near a patio door, so we can run the hose out the door. This requires skill, so the fish don't get into the hose. A piece of netting rubber-banded to the hose end that is in the tank, cuts down on the suction. It will make the hose run slower. But, trust me, you do not want to have a corydoras stuck in a hose. Ever!

Siphoning the dirty water in a bucket, first, is a bit tedious. But the disaster of a fish going out with the water is lessened. And then the bucket has to be dumped.

Back to hoses; the hose that fills the tank, has to comfortably reach the tank. Water needs to be treated, first. So, a bucket with a small pump in it? Pump the treated water into the tank? Or treat water in a bucket and just dump that in? If you consider it exercise, that's a safe way to go. In general the spills are less dramatic. But whether you use a hose system or a bucket brigade, placing the tank where the inevitable puddles won't mean permanent damage, is smart.

Temperature of the water is vital. The temperature can be somewhat regulated via heaters. But no heater can overcome a tank that is





next to a northern window in January. And, placing a tank near an air conditioner vent will mean that heater will run more.

I guarantee that a heater will go out. It will either overheat a tank, or just quit. And the tank will become uncomfortable, if not downright deadly. Tank placement **MUST** consider windows, vents, and an outlet with GFI (ground fault interrupter) close by.

Avoid extension cords. Doubly avoid putting any cord anywhere near where any animal could possibly go. Block the area behind the tank so no pet can get in behind it. They will accidentally jerk a cord and your heater will go flying.

Most important, the tank MUST be where it will be observed every day. Get into the habit of touching

every tank twice a day, preferably when feeding the fish. Is that tank warmer than it should be? IS IT COOL?

Finally, algae. Placing a tank by any bright area, including near a floor lamp, can stimulate algae growth. We all think of windows. But a floor light that is full spectrum can turn that tank green. Having said that, your plecos will be delighted. I have ancistrus, and they adore the green.



pixastock.com - 1201647

But if you want sparkling tank walls, avoid sunlight.

And honestly, if clean tank walls are important, DO NOT get a deep tank. Reaching down to scrub every bit of a deep tank will get part of a shoulder wet, will drip down the side of the body. And (this is weird) you can poison a delicate tank with the

deodorant from your arm that gets into the tank.

This is my reminder that all sucker-mouthed fish need wood. Good sunken wood with algae growing on it is a good food. In my observation, every fish likes to pick on soft wood with algae. From cichlids to killies. But for digestion, the suckermouths need it.

Placing a tank well means considering temperature, ability to access it, and the algae that will form. It also means being sure it can be cleaned easily, and can be observed, as well as touched, daily.

If you are in fishkeeping for the long haul, you know you want success. Good tank placement sets up for potential success- and moving a poorly placed tank, is no fun.

Avoid the problems I have encountered; think about where the tank goes before the bag of fish come through the door.

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Minifins

The Three Spot Gourami

Trichopodus trichopterus

By Mike Hellweg, CFN
(Certifiable Fish Nut)



EVERYONE HAS LIKELY seen the three spot gourami, *Trichopodus trichopterus*. Wait!

What?! Everyone knows it's *Trichogaster trichopterus*, right?

We'll if you've been paying attention recently, you'll see that the five (or six) species in *Trichogaster* have been moved to *Trichopodus*, and the four species of *Colisa* have been moved back to *Trichogaster*. Why? Well, scientists like to torment hobbyists who think they know everything! But seriously, without getting too deep in the name game, it has to do with primacy of the generic name's first use and the fact that no one bothered to designate a type species for either the genus *Trichogaster* or the genus *Trichopodus* until nearly a century and a half after they were created!

As there are at least 10 different species synonyms and at least four different generic names that have all referred to the three spot gourami in the literature over the past two and a half centuries, I will avoid going any deeper into the name game at this point.

The scientific name refers to the very fine, thread-like pelvic fins, and literally translates to "hair belly, hair

fin". If you watch them in an aquarium, you will notice that the three spot gouramis are very tactile, using these "feelers" to touch everything in the tank as they go through their day. They will literally rub their fins over plants, other fish, the tank and equipment itself, decorations, and anything else they encounter.

In their natural habitat the water is often murky, so these sensitive fins allow them to feel their way through their world. In addition, these "hair-fins" are covered with taste buds, so while not as sensitive as the famous "whiskers" of catfish, the fish can also find food with them.

It is very likely they also can be used to sense pheromones released by conspecifics as pairs also spend a lot of time touching each other during mating, and newly introduced fish will spend time touching each other as they get to know one another.



Aggression can sometimes be a problem with newly introduced adults as they establish a pecking order, but once established they are fairly peaceful outside of spawning. Occasional squabbles are usually settled by a bit of fin flaring and circling, with an occasional nip if the two fish are well matched otherwise.

To avoid serious problems, it is best to keep them in mixed sex groups of 5 to 7. Some authors have reported that males will chew up the caudal fin of females that are not quite ready to spawn, but if you use a large enough tank with some cover for the female and don't introduce her until she is ready to spawn, this is rarely a problem. More on this in a bit.

In the wild they are found in Southeast Asia from Vietnam westward to Thailand and Malaysia, through several islands from Sumatra back eastward to Borneo and are even reported in the Philippines, though this last location is likely influenced by man.

In fact, they are a popular food fish and are often cultured along with rice, where they can be harvested at the same time. Due to their culinary popularity they have been widely distributed by man, so in truth we have no real idea what their original natural range was.



Today they can be found on the menu in fine restaurants throughout their range, where they are displayed in tanks or jars and patrons can choose the fish they want for dinner while they are still swimming, just as we choose lobster. With the head and viscera removed, they are eaten pickled, smoked, dried or fried as well. I have seen jars of them for sale in Asian markets even here in St. Louis.



There are several color variants of the three spot gourami that are popular in the trade. The most popular ones to this day are the blue which is bright blue with two dark spots on the flanks (plus the eye makes up the "three spots" of their moniker) and the Cosby (or Opaline), which is a dark blue mottled or marbled color. But other colors are available including gold, which is bright yellow; gold marble, which is deep yellow with greenish or brownish marbling on the flanks; silver, which is a pale slightly bluish silver with no spots; and lavender, which is silver with a darkish, purplish marbling on the body.



The three spot gourami can grow to five inches, though four inches is a much more common size. Males and females are similar in size and color pattern, with males sometimes having more colorful orange or red eyes, though this is not always a reliable indicator. Males generally have a much longer, taller and pointed

dorsal fin, and in some variants the males have a bright yellowish to orangish color pattern on their bellies. Females in all variants have a much stouter appearance, and once sexually mature, they seem to always be nearly ready to burst with eggs.

Feeding couldn't be easier. In the wild they are omnivores, eating anything organic that fits in their mouths. In spite of their large size, they do not have large mouths, so they will not eat larger food items. They will just eat a LOT of smaller fare. Flakes, pellets, and frozen foods can make up the bulk of their diet, with occasional live foods added maybe once or twice weekly.

They will also eat duckweed. I've had some specimens that will literally clear a tank of duckweed in a week, and others which never once touched it, so take this with a grain of salt and make sure your particular specimens will eat duckweed before you start adding it to their tank. Oddly, in my experience specimens of the gold morphs seem to be more inclined to consume duckweed while those of the wild color three spot variants seem to be least likely to touch it.

Three spot gouramis are bubble-nesters. The male will build a large, foamy nest of bubbles at the surface under or near some structure like a large leaf, piece of Styrofoam or something similar. The male blows each bubble individually. They are coated with sticky mucus from a gland in the roof of the male's mouth. This mucus makes the bubbles last for several days, and a really well-built nest will still be in the tank when the fry become free swimming.

Most males build a large nest, though I have seen spawning reports of males barely building any nest at all. In general, it is thought that in the wild females choose their mates by the size of their nest, as this indicates a more vigorous mate who will be better able to defend the spawn.

In addition, the nests are built where they are exposed to the sun, so it is believed that taller and larger nests are more successful for hatching and raising fry. It seems the more layers of bubbles the better protection the eggs and fry have from extreme heat.

In aquaria, some males have built huge nests that cover half or more of the surface of the tank, even lifting the cover glass! While they don't form pair bonds, most males will spawn with a single female during a spawning session, but some males have been reported to spawn with multiple females if more ripe females are ready and available at the same time.

As they are large fish, I would suggest a minimum of a thirty gallon tank for spawning. Fill it about three quarters full, add a few floating plants, a large clump of Java moss or something similar, and a few flower pots turned on their sides to provide the female a place to get out of the male's line of sight in case he gets aggressive and she's not quite ready. Add a heater set to about 80 degrees Fahrenheit, and a small, slowly bubbling sponge filter. You don't want a filter going too strongly as it will make nest construction difficult for the male.

As you might surmise from their wide distribution, they are not at all demanding as to water parameters. They are found in swampy, acidic, low hardness water and in basic, alkaline water flowing over limestone. Some populations are even exposed to brackish water for at least part of the time. So as long as the water is clean, they should be good to go.

Condition both breeders with meaty foods like frozen brine shrimp, Mysis and bloodworms and live foods like blackworms, daphnia, and similar



fare. Add the male to the tank a few days before you anticipate a spawning attempt. Once the male builds a nest, add the ripe female. You'll know she is ready to go if she looks full of eggs and her egg tube is showing. This is a small white nub that protrudes slightly from the vent area.

Within an hour or so after you add her to the tank, if she is ready to go and





Male with Fry

she finds the nest and male acceptable, she will initiate spawning by approaching the nest. The male will show he is ready by intensifying his colors, and rolling over on his side to form a "U" shape with his body. The female will enter the "U" and the two fish will line up their vents and begin to embrace and roll a bit. After a few false starts, the female will begin to lay eggs in bursts of about 20 to 40 at a time.

Each egg contains a small oil droplet and floats to the surface.

After each of these egg-laying events, the male will move up to the nest and blow a few bubbles around the eggs, then return and mate again with the female until from several hundred to 4000 or so eggs are laid, depending on the size and age of the breeders. Then the female will move off and the male will start guarding and tending the nest.

At this point, carefully remove the female so you don't mess up the nest. The male will carry on guard duty for a couple days, or you can remove him as soon as spawning is done. If you leave him in the tank, only let him tend the nest and fry for two days, then remove him.

Once the fry hatch and start to make their first escaping attempts, he will catch them in his mouth and spit them back into the nest. At a certain point, he will still catch them in his mouth, but he will no longer spit them back into the nest, but rather eat them instead. Once this happens, he can consume most of a spawn in a few hours.

Once they are free swimming, the fry will be ready to be fed. They are

very tiny and need microscopic food for a few days. Infusoria is ideal, and is the reason for leaving the water level down a bit from the top. That way you can just pour in the infusoria culture into the tank each day for several days, slowly bringing the water level up to the top. When it gets to the top, it's time to start doing water changes.

If you don't want to use infusoria, fortunately, they will eat powdered commercial foods for egg layers. Usually I recommend mixing these dry commercial fry foods with water and pouring the slurry into the tank, but young three spot gouramis are surface feeders and will eat the floating powdered food greedily. They are pigs and will eat continually if you let them. This translates into rapid growth, and by the third or fourth day after becoming free swimming, many will be large enough to take newly hatched brine shrimp, microworms, vinegar eels, and even finely ground flake foods.

This rapid growth is natural, and some siblings will seem to grow as you watch them while others don't grow at all. This, too, is normal. In the wild, the faster growing siblings will consume their slower growing siblings. To head off this behavior, about every week or so, grade the fry by size while you're doing a water change. Don't attempt to raise every young gourami, as there will just be too many of them. 100 or so would be a good group to raise up to saleable size. When deciding which to cull, don't keep all of one size, as often these wind up being all of one sex when they reach maturity.

In fact, attempting to raise too many three spot gourami fry led to the genesis of the popular myth that Anabantoid fry need to have warm, moist air over the tank or they will get pneumonia and die. This was the speculation of a German breeder published back in the 1950s as to a POSSIBLE reason why his fry were dying, but if you read the entire article, you'll see that this was only one of several theories that he had, and that in truth he was actually not feeding enough food to the fry, which oddly was NOT even one of his potential theories!

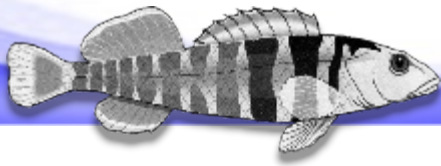
Be that as it may, a well-known American publisher came upon this article and seized on this speculation as a fact, and it became the "truth" in every Anabantoid related article and book he published, even though it is not. In fact, Anabantoid fry develop just as healthy under cooler conditions without cover over the tank as they do with cover.

I have even had paradise fish successfully spawn and rear fry in a tub on our balcony right before Thanksgiving! And many scientists over the years have debunked this myth as well including renowned Betta expert Dr. Gene Lucas, who raised thousands of spawns of *Betta splendens* in his lab with cool, dry air over the spawning tanks. Proper feeding is key to raising healthy Anabantoids- not keeping warm air over the water.

The various morphs of the three spot gourami are well worth keeping. Given room and plenty of food, they will be big, colorful, outgoing and generally peaceful members of a medium to large community or planted tank. In addition, they are long lived, often providing their keepers with six or seven years of companionship. Finally, if you're looking for a breeding project, the three spot gourami is a fun challenge that offers something a bit different than the more often encountered livebearers and cichlids.

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





Spawning the Mega Clown Pleco

Hypancistrus sp. L340

By Caleb Pittman

THE *HYPANCISTRUS* SP. L340 pleco is commonly referred to as the "Mega Clown Pleco" in the aquarium trade. This dwarf species of pleco is found throughout the Orinoco river and the Amazon Basin in South America. The Orinoco river is one of the longest rivers in South America and home to many other species we keep in our aquariums, including many species of Corydoras and many other Loricariidae.

So many of these related species are found in South America that a system was created to organize them all. This organizational system was created in the 1980's by a German aquarium magazine DATZ and is used to quickly describe species until a true scientific classification can be made. However, so many Loricariidae have been found in recent years that as many as 600 L- number plecos have been documented, many of which are still awaiting scientific classification.

The L340 pleco is a *Hypancistrus* which is a genus of the Loricariidae family. *Hypancistrus* plecos are



omnivorous but tend to prefer a meatier diet. Being from the Amazon Basin the "Mega Clown Plecos" enjoy slightly acidic quick flowing warm water, at or above 80 degrees Fahrenheit.

A dwarf species of pleco the adult fish only grow to about 3". Mature females have a wider midsection when viewed from above. The males have a wider head with a thicker first pectoral ray and more pronounced odontodes along the body. The yellow-orange and black body

markings have nice contrast and make this quite the attractive little pleco.

Because of their small size, smaller crevices and caves are sought after by males and used for spawning. Adult males are often found guarding their cave if they are tending a clutch of eggs or not.

When I got these plecos in 2017 I had 3 aquariums and probably only had kept bristlenose, *Ancistrus* sp, at that time. I set them up in a 29-gallon tank with Colombian tetras and about 8 small caves but lost one within 24 hours.

About 6 months later we bought our current home and moved. I caught all the fish, put them in a bucket and moved the tank essentially setup with about 2-3" water sloshing around, hoping I would save the beneficial



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After a water change, when the females are plump, and the aquarium light has gone out, a male will trap a female inside his cave where they will spawn.

bacteria in the substrate. I moved all 4-5 aquariums I had this way but wouldn't much recommend it.

Once settled in the new fish room I've kept the temperature in the tank high 80s, ranging from 84-86. I originally fed lots of frozen blood worm cubes but now feed black worms twice a week as well as mixed sinking pellets and wafers. I feed almost all my tanks fresh baby brine shrimp once a day and will often feed blanched zucchini or Repashy to all my plecos. The L340s come out of everywhere in the tank to eat micro worms.

When I change the water, I use charcoal filtered water around 75 degrees and believe this drop in



temperature is a big trigger for spawning. Soft water has not been required for me but may improve results. My tap water is around 280-300 ppm. A reverse osmosis system has recently been installed but and have not begun experimenting with it.



After a water change when the females are plump, the males are guarding their caves and the aquarium light has gone out, a male will trap a female inside his cave where they will spawn.

I have had better luck leaving the male to guard and fan the eggs inside

his cave. I have been able to raise fry larger, faster inside the breeding tank as opposed to pulling the eggs or fry and raising them on their own. In the past two years they have colony bred in the same 29-gallon tank and have had a couple generations. When I see a clutch of eggs, I will add some leaf material to the tank to begin to break down, this is a perfect food for newly hatched plecos- even meat eating *Hypancistrus*.

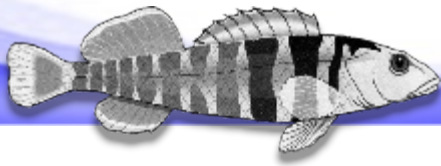
The *Hypancistrus* L340 "Mega Clown" pleco is a quite stunning pleco, almost a yellow version of the very popular Zebra Pleco (*Hypancistrus* Zebra L046).

The "Mega Clown Pleco" was my first L number pleco and I think it would make a great L number *Hypancistrus* for any new or experienced aquarist. Mine are kept hot at 86F and are colony bred in a 29-gallon aquarium. Current tankmates are fire red *Neocaridina* shrimp which I have found also do well in warm tanks!

The L340's will eat a wide variety of prepared foods but, I believe the biggest key to spawning all fish is a varied diet including live foods. The small size and nice disposition of the *Hypancistrus* L340 makes it a good candidate for many different aquariums and tankmates.

I get the most enjoyment from my aquariums when I can create a natural environment in which the fish can reproduce and display their natural behaviors.





The Triangle Cichlid: *Uaru amphiacanthoides*

by Chase
Klinesteker

www.chasesfishes.com

Special Update for MASI

MY FAVORITE FISH is unquestionably the Triangle Cichlid, or *Uaru amphiacanthoides*. This is proven by the fact that I have 17 "3X5 Computer" cards of information collected on the species when most species have only 2 or 3.

I bred and wrote a 3-page article on this fish in 1993, but have recently bred it again and discovered some new information. Because this fish is a definite challenge to breed, I thought I should share. For those serious about breeding it, the 1993 article is on my "Breeding Tropical Fish" website www.chasesfishes.com, in the "Article" section under "Cichlids".



Uaru are native to the Rio Negro portion of the Amazon.



PERSONALITY

Uaru remind me of Discus, slow and stately. Their mouths are even similar and they both feed their fry with body slime at first. Big and bug-eyed, they seem to have a definite

Uaru have often been called the Poor Man's Discus and remind me of them, slow and stately.

personality and will eat food from your hand. In October of 2017, I purchased 6 2-3 inch Uaru at a SWAMAS auction. I paid about \$70. for them and thought that was high, but later found out on the Internet that they retail for around \$35. each, with adults going for around \$100. Sometimes, this "poor mans' Discus" sells for more than discus because it is so infrequently bred.

PAIR BONDING

As the 6 fish grew, I put 3 each in two 20-gallon tanks, as no larger tanks were available. When they reached 4-5 inches, they began to sex out, mainly shown by their behavior and treatment of the third fish. Males are slightly larger and may have slightly longer fins, but that is not predictable. I didn't realize how strongly they pair-

bond, as the third fish in both tanks was killed, and I ended up with 2 pairs. Then one male killed his female and I had one breeding pair. Even after the mated pair laid several batches of eggs, the male started attacking the female, but I quickly removed the female to another tank to recover for a few weeks. This aggression was likely due to not having a large enough aquarium to accommodate all 6 Uaru. Reintroduction of the female brought more attacks by the male, so I waited until nighttime, threw in the female, and turned the lights out. The next morning the pair was doing fine and they soon started laying eggs again.

FEEDING

Uaru are vegetarians. In 1993, my Uaru were in a 70 gallon tank with a healthy growth of water sprite for them to access. In a smaller tank, this was not possible and I decided to feed them mostly pellets. I selected Pond Chow that leans toward more vegetarian fish. First soaking the pellets in water for 5-10 minutes helped the fish consume them.

Extra live plants from my other tanks, even if covered with algae, were eagerly devoured.

BREEDING

The pair bred in a bare 20 gallon-long with an undergravel filter. Although the fish rearranged the gravel considerably, the filter still worked well for this messy-eating fish. They did not





The DARTER

FISHES AS DISHES

PATRICK A. TOSIE, SR.

We all love our fish! This column is dedicated to using fish for something tasty to enjoy. Try it, you may like it. If you have leftovers, bring them to a monthly meeting for others to enjoy!

SPICY BAKED TILAPIA

Ingredients:

- 4 tilapia fillets
- 2 cups corn flakes, crushed
- 4 tablespoons shredded parmesan cheese
- 1/2 - 3/4 teaspoon cayenne pepper
- 2 tablespoons milk
- 1 egg

EAT MORE



FISH



Directions:

- Heat oven to 400 degrees.
- Spray baking pan with nonstick cooking spray.
- Toss together cornflakes, parmesan cheese and cayenne pepper in a shallow bowl or pie plate.
- Whisk together egg and milk in a second shallow bowl or pie plate.
- Dip each fillet in egg mixture; then coat with cornflake mixture.

Salt and pepper to taste & Bake 12 to 14 minutes or until fish flakes easily with fork.

Serve fish with tarter or cocktail sauce and top with more parmesan cheese, if desired.

Total Time: 20 minutes

lay any eggs in or on the clay pot in the tank.

To help clean up, I had a 4-5 inch woodcat in with the pair. As I intended to remove the eggs for hatching, the catfish threat seemed to help strengthen the pair-bond. The mated pair would lay only about 30-40 eggs at a time, but every 5-10 days. They were laid on the glass near the undergravel lift tube in the same spot.

Uaru are vegetarians. Previously, in a large tank, I fed them water sprite. In this case, with a smaller tank, I choose to feed them Pond Chow pellets.

I would remove the eggs with a siphon-on-a-stick, which was savagely attacked by the pair. I strongly recommend that you do NOT put your hand in the tank at this time! Eggs left in with the parents did not result in any free-swimming fry, whether from the catfish or hard tapwater.

HATCHING AND RAISING

This seems to be the biggest challenge in breeding this fish. This pair has probably spawned 20 times for me in the last several months, but the hatch rate has been poor or none. I now have around 30 fry from those spawnings. Most times I use fresh rainwater to hatch them in, but from our area it is slightly alkaline, and Uaru come from extremely soft and acid water. Lately I have been acidifying the rainwater and keeping it warmer (80+ degrees), and that may help.

It seems that the eggs are very sensitive to any bacteria, so I now use both a sponge filter and bubbler for water circulation in the hatching

container, which is about one gallon. Do water changes with clean rainwater. Once the eggs have hatched, the water must be kept very clean until they become free-swimming. Then I add snails and a few pieces of oak leaf. I believe the oak leaf may produce some slime that the fry can feed on for a couple of days before they take baby brine shrimp.



Uaru Juvenile

The fry are kept in the hatching container and fed for 2-3 weeks before they are adjusted to tapwater and moved to a larger tank.



2020 BREEDER'S AWARD PROGRAM - Steve Edie



July 2020

Member	Genus	Species	Common Name	PTs	Bonus	CARES	Total
Chuck Bremer	<i>Skiffia</i>	<i>multipunctata</i> "Lago de Comecuaro"@#	Spotted Skiffia	0		15	1427
	<i>Xenotoca</i>	<i>eiseni</i> @#	Red Tailed Goodeid	0		10	1437
Steve Coxon	<i>Apistogramma</i>	<i>alacrina</i> *	Rotpunkt's Apisto	15	5		35
	<i>Lamprologus</i>	<i>multifasciatus</i>	Multies	10			45
	<i>Xiphophorus</i>	<i>sp.</i> "Domestic Platy"	Wagtail Platy	5			50
Kathy Daly	<i>Corydoras</i>	<i>davidsandsi</i>	Sand's Cory	10			703
Jake Harris	<i>Andinocara</i>	<i>pulcher</i> "Electric Blue"		5			45
	<i>Apistogramma</i>	<i>bitaeniata</i> "Tefe" *		15	5		65
	<i>Apistogramma</i>	<i>macmasteri</i>		15			80
	<i>Apistogramma</i>	<i>nijsseni</i>		15			95
	<i>Lamprologus</i>	<i>multifasciatus</i>		10			105
	<i>Neolamprologus</i>	<i>brichardi</i>		10			115
	<i>Trichopodus</i>	<i>trichopterus</i>		5			120
Charles Harrison	<i>Corydoras</i>	<i>duplicareus</i> #		0			2930
	<i>Laimosemion</i>	<i>agile</i> "Riviere d'Herviux" *		10	5		2945
Jack Heller	<i>Nimbapanchax</i>	<i>petersi</i> **		15	10		795
Mike Hellweg	<i>Ancistrus</i>	<i>sp.</i> "LI 56 Rio Tocantins" *		10	5		7335
	<i>Aquidens</i>	<i>patricki</i>		10			7345
	<i>Cryptoheros</i>	<i>cutteri</i> "Rio Dante" *		10	5		7360
	<i>Gambusia</i>	<i>speciosa</i> "Conta Springs" *	Tex-Mex Mosquitofish	5	5		7370
	<i>Heterophallus</i>	<i>milleri</i> "Ololotan" *	Grijalva Mosquitofish	5	5		7380
	<i>Pethia</i>	<i>padamaya</i>	Odessa Barb	10			7390
	<i>Poeciliopsis</i>	<i>baenschi</i> "Mazatlan" *	Lowland Topminnow	15	5		7410
	<i>Xiphophorus</i>	<i>nigrensis</i> "Rio Choy" *	Black Swordtail	10	5		7425
Mike Huber	<i>Alfaro</i>	<i>cultratus</i>	Knifebelly Livebearer	10			2857
	<i>Aulonocara</i>	<i>baenschi</i> "Nkhomo Benga" *@	Yellow Regal Peacock	10	5	10	2882
	<i>Aulonocara</i>	<i>stuartgranti</i>	Flavescent Peacock	10			2892
	<i>Chapalichthys</i>	<i>pardalis</i> @		10		10	2912



BAP - July 2020 - CONTINUED

Member	Genus	Species	Common Name	PTs	Bonus	CARES	Total
Mike Huber	Chromidotilapia	guntheri	Gunther's Mouthbrooder	10			2922
(CONT)	Ilyodon	whitei "Rio Huamita" @		10		10	2942
	Otopharynx	lithobates "Black Orange Dorsal"		10			2952
	Phenacogrammus	interruptus **	Congo Tetra	20	10		2982
	Poecilia	salvatoris	Liberty Molly	5			2987
	Protomelas	sp. "Steveni Taiwan" * @		10	5	10	3012
Bruce Mayhew	Pterophyllum	scalare ^	Pinoy Clown Veil Angelfish	0	2		440
Ed Millinger	Gymnogeophagus	sp. "Catalancito" *		10	5		1081
Laura Morrison	Poecilia	reticulata	Guppy	5			5
	Xenotoca	lyonsi @		10		10	25
Caleb Pitman	Ameca	splendens @#	Butterfly Splitfin	0		10	312
	Phallichthys	quadripunctatus #	Four Spot Merry Widow	0			312
	Xiphophorus	kallmani "Catemaco" @		10		10	332
Mike Slater	Trichopodus	trichopterus	Blue Gourami	5			137
Debbie Sultan & Tom	Alcolapia	ndalalani * @		15	5	15	1385
Corradini	Nimbochromis	venustus		15			1400
Pat Tosie	Coptodon	kottae @#		0		10	6312
	Danakilia	sp. "Shukaray" #		0			6312
	Haplochromis	chromogynos * @		10	5	10	6337
	Poecilia	reticulata ^	Red Tail Guppy	0	1		6338
	Skiffia	francesae "Sayula" @#		0		15	6353
	Xenotoca	eiseni "Rio Compistela" @		10		10	6373
John Van Asch	Herotilapia	multispinosa	Golden Rainbow Cichlid	5			320
Kurt Zahringer	Cynodonichthys	isthmensis *		10	5		735

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



HORTICULTURE AWARD PROGRAM - Mike Hellweg

July & August 2020

Points Rewarded!



Member	Genus & Species	Common Name	Type	Points
Brian Woodrick	120 points			
	<i>Egeria najas</i>	Curly Leaf Anacharis	V	5
	<i>Vallisneria americana</i>	Corkscrew Val	V	5
Charles Harrison	825 points			
	<i>Bacopa monnieri</i>	Water Hyssop	IB	15
	<i>Bacopa monnieri</i>	Water Hyssop	V	10
Chuck Bremer	1390 points			
	<i>Eichhornia crassipes</i>	Water Hyacinth	V	5
	<i>Acorus gramineus</i>	Varigated Sweet Flag	OB	10
	<i>Iris laevigata</i>	Rose Queen Water Iris	OB	10*
	<i>Isolepis cernua</i>	Fiber Optic Rush	OB	10*
	<i>Juncus effusus</i>	Soft Corkscrew Rush	V	10
	<i>Juncus inflexus</i>	Blue Mohawk Soft Rush	V	10*
	<i>Ludwigia sediodes</i>	Mosaic Tile Plant	V	5
	<i>Lysimachia congestiflora</i>	Midnight Sun Lysimachia	OB	10*
	<i>Microsorium brassii</i>	Needle Leaf Java Fern	V	10
	<i>Oryza sativa</i>	Black Madras Rice	OB	10*
	<i>Salvinia minima</i>	Dwarf Salvinia	V	5
	<i>Typha laxmannii</i>	Slender Cattail	OB	5
David Schmidt	15 points			
	<i>Cabomba caroliniana</i>	Fanwort	V	10
	<i>Hygrophila difformis</i>	Water Wisteria	V	5
Gary Lange	1900 points			
	<i>Nymphaea gardneriana</i>	Santarem Water Lily	V	10*
Holly Paoni & Kevin Wise	1860 points			
	<i>Hydrocleys nymphoides</i>	Yellow Water Poppy	OB	10
	<i>Hydrocleys nymphoides</i>	Yellow Water Poppy	V	10
	<i>Iris fulva</i>	Copper Water Iris	IB	15
	<i>Zephyranthes grandiflora</i>	Pink Rain Lily	IB	20
	<i>Zephyranthes grandiflora</i>	Pink Rain Lily	S	20



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



HORTICULTURE AWARD PROGRAM - Mike Hellweg July & August 2020 - CONTINUED

Member	Genus & Species	Common Name	Type	Points
Jack Heller	40 points			
	<i>Anubias barteri</i>	Dwarf Anubias	V	15
Laura Morrison	35 points			
	<i>Eichhornia crassipes</i>	Water Hyacinth	V	5
	<i>Lemna minor</i>	Dwarf Duckweed	V	5
	<i>Myriophyllum aquaticum</i>	Parrot's Feather	V	5
Mike Hellweg	3770 points			
	<i>Zosterella dubia</i>	Willow Grass	V	10
Mike Huber	580 points			
	<i>Zosterella dubia</i>	Willow Grass	OB	10
	<i>Anubias barteri</i>		IB	20
Steve Coxon	45 points			
	<i>Cabomba caroliniana</i>	Fanwort	V	10
	<i>Ceratophyllum demersum</i>	Hornwort	V	5

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

Documentation of Blooms and Temp Vegetative HAP rules!

Water Poppy

Hydrocleys nymphoides

This water lily type plant has put off runners all through the pond. Put out 2, found 6 more, just off of the smaller one all from vegetative reproduction.

Need to get the duckweed cleaned up but didn't want to clean it all up with this heat wave. Needed to top off the pond, so overfilled some to clear out some of duckweed. Lol

Commons / comets would probably be fine to clean up the duckweed but I put almost 2 dozen juvenile convicts in there that have started breeding. Saw 2 fry swarms when I topped it up. So far, so good, but never know what will set off a breeding convict.

(Holly Paoni)



**Mud Plantain, Water Star
Grass, Water Willow
*Heterantheria dubia***



This species is a native of the northern and central United States and is sometimes also called the Mud Plantain. I have had it flower outdoors with small yellow flowers and it grows quite robustly in an indoor fish tank with little care. Several times I have offered it for sale at club auctions and other venues. Growth habit is similar to a Vallisneria but individual stems have a jointed configuration and stream across the surface. When it does this it often breaks off at the base and then becomes free floating.

It offers good fry cover for livebearers and also a place for duckweed and small bladderwort to tangle which makes it a nuisance collector and maybe not quite as enticing for those with duckweed or other floating small plants. **(Chuck Bremer)**

**Fiber Optic Plant
*Isolepis (Scirpus) cernus***



This grass readily available and easily grown. It is one of the standard ground covers offered by the local garden center and as such came in a small pot priced for sale in groups so was inexpensive. The plant is considered one of the reeds, most of which like wet conditions and this one is no exception coming from the coastal fresh and brackish water areas of the Pacific coast.

I dropped the pot into a ring made of Styrofoam and placed it floating into one of my outdoor ponds and it took off quickly filling the pot and hanging over the side. In little time it was ready to be split. **(Chuck Bremer)**

**Corkscrew Rush
*Juncus effusus spiralis***



This is another of those common rushes offered by many garden centers. As with most rushes it prefers wet conditions and grows easily in a marginal or bog situation. I grew mine by creating a ring to fit the pot using styrofoam and floating it so the crown would be just above the water. By floating it the need to constantly water is eliminated.

Although unique, the extreme corkscrew of this plant is not so attractive for me and does nothing to offer fry cover in the tank as it has a tendency to curl toward the center of the pot. **(Chuck Bremer)**

Ed's Note: the Yellow Striped Armyworm was found feeding in member's outdoor tubs in 2020.



**Blue Mohawk Soft Rush
*Juncus inflexus***



Grown and acquired similarly to the corkscrew rush above. I initially thought they were varieties of the same species but found that not to be the case. Both have their own species assigned, although they are in the same genus. Most of the species of this genus, *Juncus*, are considered to be water or cold weather plants.

The plant is quite attractive with leaves about 18 inches long and blue green.

This one was also easy to grow by fitting it's pot with a ring of styrofoam and floating in the tub. The crown of the plant should be slightly above the water. To reproduce simply divide the developed crown. **(Chuck Bremer)**



Mosaic plant
Ludwigia sedioides



The Mosaic plant is a true aquatic and roots in the bottom of the pond or lake. Sinking a pot filled with potting soil under the water is sufficient housing. It would go right alongside water lilies in such tubs. It really doesn't like rapidly moving water and will spread across the surface.

As a Ludwigia species it floats easily and will root from cuttings.

The Mosaic Plant is easily confused with the European Water Chestnut, *Trapa natans*, which is considered to be invasive in many states. They can be told apart by the slightly more blocky leaves of the chestnut. Both have serrated leaf edges and similar interlocked patterns on the surface of the water.

(Chuck Bremer)

Needle Leaf Java Fern
Microsorium pteropus



A relatively newer selection of Java Fern, this variety is narrow leaved and still grows slowly under low light. It is easy to propagate, just takes some patience.

Mine is growing on a piece of drift wood deep in a 125 gallon tank and provides good fry cover for *Julidochromis* fry so it is also in a hard water tank. Mine started from a few leaves about 4 years ago and is just now forming a volleyball sized plant.

The plant makes excellent aquascapes because it does not have to be trimmed very often. **(Chuck Bremer)**

Floating Salvinia - Water Spangles
Salvinia minima



Several species of *Salvinia* have found their way into the hobby recently. Although *S. minima* has been around for some time. Generally *Salvinia* species are a string of leaves arranged alternately along a thin stem. The leaves are hairy above and have a rootlet attached to the main vein that dangles into the water. This root is good at taking up nutrients and they will also survive and reproduce over a muddy bottom.

Small specimens or poorly growing ones can easily be confused with *Phyllanthus fluitans*, sometimes called "Red Root Floater", which likes a higher humidity over the leaves and water a bit more soft and cleaner than necessary for *Salvinia*.

Many of this genus are considered invasive and prohibited from trade in the hobby. Since they are also difficult to identify and tell apart I generally avoid *Salvinia* species and do not trade or move to other aquarists if I should receive them as a contaminant on other floating plants. I also find among the hairs to be a good source for unwanted cyanobacteria (blue/green algae/bacteria). **(Chuck Bremer)**



Pink Rain Lily

Zephyranthes grandiflora

Ive had the *Zephyranthes grandiflora* since late last summer. I planted them in terra cotta pots in potting soil, and capped that with peagravel. They overwintered in the sunroom receiving indirect to full sun. I originally had the pots in my indoor pond, but as my cat has a bad habit of knocking the pots over in there, I moved the pots into a container, I filled with water from the pond, each water change, and it stayed next to the pond all winter and spring.

Its an easy to grow and bloom species given good lighting and a longer photo period. The bulbs divide, and they also reproduce by seed. Its a fun marginal to bog plant, and is quite attractive. If you can, give it a try.

My first bloom was indoors in early May, but missed seeding it. I moved them outdoor into the pond, in late may, and got outdoor blooms starting June 1 & 2nd. I was able to get my first seed, naturally June 13th. I havent been using any fertilizer, or added anything to the pots since I first planted them, Last August or September.

(Holly Paoni)

Blooms & Seed



Copper Iris

Iris fulva

Seems happier in the sunroom than it ever was outside.

In a dishpan, potting soil, watered from indoor pond, and kept moist. Its went from 1 plant to a good sized cluster of plants. Waiting on weather to get nicer before turning in the vegetative propagation.

(Holly Paoni)



***Nymphaea gardneriana*"Santarem"**

This is a small dwarf lily that I picked up at the May 2019 AGA convention in Seattle. According to my new Kasselmann plant bible (English version 2020) it had entered the hobby in 2015 under the name N. "Santarem" or "Dwarf Santarem".

I abused it quite a bit and often other plants grew over the top of it but it hung on but not thriving. In early April of 2020 when it appeared that we wouldn't be going anywhere for a long time because of COVID 19 I decided to start working a little harder with some of the plants I had. I gave it more room and a few fertilizer tabs. It started rewarding me with more plants. Unlike many of the other *Nymphaea* this reproduces via runners.

So these little lilies started popping up all over my aquarium. Although I have it under bright lights and CO2 I don't think CO2 is necessary but it is going to need somewhat decent light.

I really like the deep fork in the leaf and the tiny red splotches. Like all *Nymphaea* kept in the aquarium they should be regularly trimmed to keep the leaves from reaching the surface. This plant looks quite nice trimmed at about 7 inches or less making it a nice foreground or mid-ground plant in your aquarium.

Make sure that you don't let other plants grow over the top which will force it to make leaves that shoot to the surface. I may let a few shoot up anyway and see if I can't get a flower out of it. Supposedly it has sweet smelling flowers that only open at night. If unsuccessful then maybe I'll wait until next year and try one outside. But for now it will remain a part of my plant collection.

(Gary Lange)



Plants remain unaffected by COVID 19!

Photographs of Blooms in your summer tubs is an easy way to attain HAP points and show off your Water Garden!



Send your HAP reports to: HAPReports@missouriaquariumsociety.com



Editor's note: Since these HAP reports require an emailed photo and not a sale to confirm, the HAP program can continue even without Face-2-Face meetings. Click the scroll for the paperwork.



2020

CLUB HOPPING Steve Edie

MASI Events in 2020

Sep 17 - MASI General Meeting Webinar

Sep 24 MASI Executive Council ZOOM

Oct 15 - MASI General Meeting Webinar

Oct 22 MASI Executive Council ZOOM

Nov 19 - MASI General Meeting Webinar

Nov 23 MASI Executive Council ZOOM

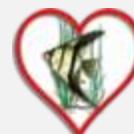
Nov 8 MASI Fall Auction

Nov 14 MASI 2019 Awards Nite

Dec 17 MASI Christmas Party



Nearby Clubs linked to their logo



2021

Jan 16 - CAFÉ Winter Auction, Champaign, IL

Feb 28 - MASI Winter Auction, St Louis, MO

Mar 19-21 - NEC Convention, Wallingford, CT

Apr 16-18 - ALA Convention, Detroit, MI

May 1 - MASI Spring Swap, St Louis, MO

May 1 - MASI 2020 Awards, St Louis, MO

May 2 - MASI Spring Auction, St Louis, MO

June 10-13 - AKA National Conv, St Louis, MO

July 17 - CAFÉ Summer Auction, Champaign, IL

July 22-25 - ACA Convention, St Louis, MO

Aug 8 - MASI Summer Auction, St Louis, MO

Sept 19 - MASI Fall Swap, St Louis, MO

Nov 7 - MASI Fall Auction, St Louis, MO



2020 Non-MASI events have been removed as most have been canceled. If held they may be kept more local for crowd control purposes. Some Conventions, such as OCA, may retry as Virtual in 2020. As things firm up for 2021 the Calendar will again be expanded into a Regional/National scope.

Continue to check with event sponsors or On-Line before driving long distances for the foreseeable future.

Other links are on the MASI

[Linkpage.](#)

Convention LogosHotlinked!





The DARTER

MEMBER CLASSIFIEDS

Wanted:

Sternco Mini Box Filter distributed by **Metaframe and Sternco** as part of their basic 5 - 10 gallon starter kits in the late 1960s and early 1970s. It was 4" long and made by Sternco from 1963 - 1968. I'm looking for up to a dozen of them. I'm not looking for museum pieces, I still use them in small tanks.

I'm also looking for one **Scattergood Filterking** hang on tank filter, made in Missouri from the 1940s to the 1960s.

Contact Mike Hellweg - Mike@MiniFins.com Or see me at a meeting or call: (636) 240-2443



Available to a Good Home:



Several **Rio water pumps and powerheads**, Like new. And other equipment not shown here:

- Rio Aqua Pumps & Powerheads: 2 - Rio 3100's, Rio 180
- Rio Pro Grade HyperFlows: Rio 32HF & Rio 20HF
- Iwaki Walchem - Aquarium Pump WMD 40RLXT
- Londa L86 Automatic Feeder

Email Renee and make an offer. Trying to make room!!

Contact: Renee - ren411eal@gmail.com

See a Tank you might like? Many remained after the **MASI July Parking Lot Swap** 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	\$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	
	Lavamisole 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	
Mike Hellweg MiniFins	General Aquarium Support: Dechlor, Coconut Caves, Flake Foods, Plants & Custom Fish Orders Contact by email or buy at the back of the room at MASI General meetings	Contact for Pricing	Email: Mike@Minifins.com



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

MASI Members of good standing can place a fish related classified ad in the Darter for free. Send your ads to the editor. 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 meeting.

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.



HAP Temporary Rule Change

For the duration of the COVID 19 outbreak, we will suspend the requirement that for vegetative reproduction credit one must donate plantlets, cuttings or plants for auction at a MASI General Meeting or at one of the quarterly MASI auctions.

Instead, a member can now submit by Email:

1. HAP form
2. Photo of the propagated plant -a cell phone photo is fine
3. Short, approximately 200 word, article about the plant and how the entrant propagated it.

These 3 items must be submitted for each species/variety for which HAP credit is being sought. All three items can be submitted in one email. These 200 word articles do not replace the required articles for level advancement in the program, which are more extensive.

Rules for submitting a photo of a bloom for bloom credit; and for submitting a photo of the bloom, fruit, seed and seedling for sexual reproduction credit remain unchanged as these can already be submitted electronically.

Forms, photos and articles should be submitted to me using the following email:

HAPReports@missouriaquariumsociety.com

Thanks,

Mike Hellweg



HAP forms are available from the [HAP page of the MASI Website](#) or by clicking the HAP-form icon below my photo above. They can be filled out using the FREE Adobe Reader DC which can be found at <https://acrobat.adobe.com/us/en/acrobat/pdf-reader.html> or by clicking this Icon:



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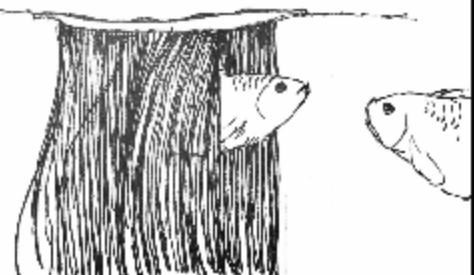
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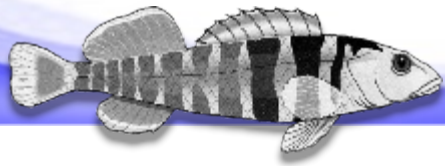
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"The one with the Leaf"

Kathy Deutsch
kathy@skden.com





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