

V43#4

The
DARTER

JULY/AUGUST 2017

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



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THE DARTER

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

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Cover - Jim Miller's *Mastacembelus circumcinctus* Zig-zag eel #2
Photo By Gary Lange



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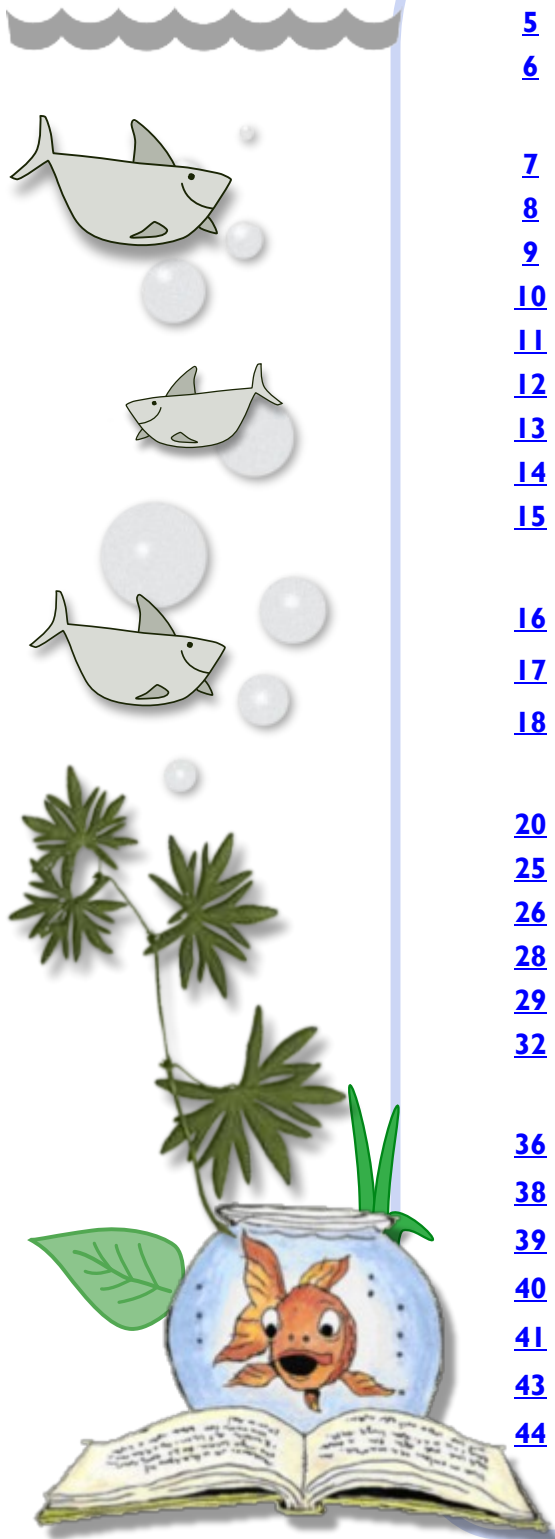
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FROM THE PRESIDENT'S TANK

Pat Tosie

Change, change, change (sounds like a song, doesn't it!)

Starting in July our new council takes over the operations of our club. They are: President - Pat Tosie, Vice President - Debbie Sultan, Treasurer - Jack Heller, Secretary - Angela Hellweg; Council members: Tom Corradini, Charles Harrison, Joe Hughey, Gary Lange, Mark Theby and Guy Tinker. Chuck Bremer will continue as Editor and Mike Hellweg as Auction Chairman. We still need a Convention/Show Chairman - please let me know if you are interested in this position. This year it should be easier as the council

voted not to have a 2018 Convention/Show, however. This Chair would still be in charge of the SuperBowl.

Many thanks go out to the outgoing officers and council members; Daniel Kinder, John VanAsch, Cory Koch and Leroy McCreary. We appreciate your dedication and hard work serving our club.

At our June meeting will had a **very successful Members Only Rare Fish Auction** with fish donated from Segrest Farms and others ordered from Segrest through Tropical World Pets. Thank you so much for everyone's support and the support of Segrest and TWP.

There are several social events coming up, starting with our club picnic at the home of Rick and Pam Jokerst on July 29 from 2:00 till 6:30, the club provides the meat and members are to bring a side dish and their drinks. Please let us know if you and your family will be attending so we can plan accordingly. Be sure to bring a swim suit as they have a beautiful pool with waterfall and bring a camera so you can take pictures of their breathtaking pond and award winning Koi. We will also be having a night at the Drive-In and another Fish Bowl later this year!

On a sad note, I would like to give my heartfelt condolences to longtime member Leroy McCreary on the passing of his wife Rose this week. My prayers go out to Leroy and his family.

The morning after I received more sad news and It's with a heavy heart that I regret to inform everyone the passing of long time friend and fellow MASI member, Jim Miller who passed away of heart complications. Jim will also be greatly missed. Jim's wife Delores called me to let me know how much Jim loved our club and he wanted to donate his fish room to MASI.

Keep looking below water....

FROM THE EDITOR

Chuck Bremer



This has been a tough Darter to put together. As Pat says there have been a lot of changes during it's inception.

First there weren't enough articles to fill so began editing reprints early to fill this issue-then originals showed up. For once everyone was on time with submission deadlines! Thank You All!! And the Darter was nearly together...and early to boot.

As you now know things changed again last week with the loss of two long time and very respected members. The Darter was once again redone to fit the new needs for information. That was a tough week and made editing a bit sadder than it should be.

There is a story behind the cover of this issue. For those of you who may not recognize it this is a photo taken at the 2017 MASI Show of Jim Miller's replacement Spiny Eel. Two years ago he had one of about the same size that was voted Best of Show but escaped his tank the night of the Banquet and dried up on the carpet- you'll see a reference to it in Steve Edie's comments about Jim. Jim replaced that Eel with another that again won Best of Class this year. It's a good photo and thought it was only fitting to have Eel#2 on a cover that features Jim inside.

Deadline for the September Darter is September 12th!

Send us an Article!!

Watch the videos linked to the Collecting in Florida article by Chuck Davis and you'll be hooked!!



Can you recognize your 2017/18 Executive Council?



Position	Name	Email	Phone
President	Pat Tosie	pattosie@yahoo.com	314-616-4316
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Librarian	Dave Rush	fishydave2@yahoo.com	314-291-8932
Membership & Welcoming	Ed Millinger	amazoneddy1@yahoo.com	573-883-9943
Fish Rescue	John Van Asch	johnsfishy0731@att.net	618-604-7228
Social Events Coordinator	John Van Asch		
Forum Liaison	Scott Bush	sportspicks@charter.net	314-486-8872
Breeders' Award Program	Steve Edie	sredie@charter.net	636-922-4232
Show Chairman	OPEN		

As of July the new Executive Council takes office.

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

Above you will find a list of the 2017/18 Executive Council as well as other Committee Chairs and Service positions within our Club. **The voting positions normally attending Executive Council meetings are marked in BLUE** but please feel free to contact anyone on the list to provide your input. Most voting members are identified with a photograph for easier recognition.

...and Remember, anyone is invited to attend the Council meetings to bring up issues, contribute to the discussion or just to see how

they are run. Meetings are normally held the 3rd Saturday of each month but are changed to fit schedules on occasion. They are normally held at a Council members home so it is also a good time to view fish and fishrooms!!

Give them your Feedback and Support!



MASI General Meeting - Thursday, July 20th!!



Dr. Phil Nixon



Fish of
Tate's
Hell,
Florida.

After four NANFA study trips Phil will address several habitat characteristics and the fish that live in each.



How to Arrive at the July Meeting Location.

This location will be used for several 2018 MASI Events

Holiday Inn Airport West - Earth City

3400 Rider Trail S. Earth City, MO

Just North of I-70 at Rt 141



Sea U There?



Additional Info about the July Meeting

Dr Phil's Bio:

Phil Nixon has degrees through Ph.D. in Biology, Zoology, and Entomology with minors in Botany and Horticulture from Lincoln Land Community College, Southern Illinois University, and Kansas State University. He retired in 2017 as a University of Illinois Extension Entomologist.

Phil has been involved with native fish since age 12 when he started his first aquarium of creek chubs that he collected with a homemade dip net from a local creek. He is a member and past board member of the North American Native Fishes Association (NANFA), and Treasurer of the Champaign Area Fish Exchange. He and his wife Carie maintain approximately 30 aquariums and 12 outdoor ponds with about two-thirds containing North American native fish. Most of the native fish or their ancestors were collected by Phil at

NANFA meetings in various parts of the country.

He is a frequent auctioneer at MASI auctions and recently spoke on the topic of Aquatic Insects and Invertebrates.

Fish of Tate's Hell, Florida

Tate's Hell State Forest is a natural area near the Gulf of Mexico approximately 40 miles south of Tallahassee, FL. The surrounding area contains a large variety of native fish in a variety of habitats. For a Midwesterner, it is almost like going on a fish expedition to a foreign country without the extra cost, shots, or passport and where the locals mostly speak the your language.

Various fish habitats and aquarium suitable fish living in them will be addressed. Included will be the water



parameters such as depth, pH, organic content, and cover that make one habitat type more suitable for some fish over others. **Approximately one-third of the 25 fish species covered will be killifish.**

MASI General Meeting -Thursday, August 17th!!



Chuck started as a farm boy with a single 10 gallon Metaframe tank at about 9 years old. Throughout most of his life he moved around and had neither time nor space for a multiple tank set up. A Biologist by training he used the tank spaces he could keep to learn about keeping fish in aquarium communities until he could turn the knowledge accumulated into an eventual fish room.



Chuck Bremer

This discussion will cover the concept of communities. Why, What and How to keep them.

The talk is designed for hobbyists who may have only one or a few tanks but still want to keep as many fish as possible and learn from them. Many begin in the aquarium Hobby like this and some continue long term. The goal is to show how to keep more fish species in a limited area and make them all work together and incorporates many aquarium basics throughout.

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



MASI Summer Picnic

What:

Relax & Enjoy the locally renowned
Water Garden!
See Championship Koi!
Swim in the Pool
Good Conversation

Why:

Enjoy our membership in a Fishy
outdoor environment!

When:

July 29th, 2017, 2-6:30 PM

Where:

Home of Rick & Pam Jokerst
305 Wyndmoor Terrace Ct.
Town & Country, MO 63141

Who:

MASI Members Families and Guests

How:

Let Pat know then just Show Up!,
MASI is providing the Meats!! Bring any
special drinks you want and possibly a
salad, vegetable or dessert to share



RSVP to Pat Tosie at the MASI meeting, by phone or TEXT (314-616-4316) if you plan to attend so he can plan the meats!





Join MASI at the Movies!

AUGUST 12th, 2017



DRIVE IN



SKYVIEW - 5700 N. Belt West, Belleville, IL

**Meet at the Schnucks next door at 7:00
and enter as a group**



FREQUENTLY ASKED QUESTIONS

**Click to Check
the Features**

**Haven't been to a
Drive In lately?
Got Questions?**

**Click
here**

**Such as: BYOB/Food? *Yes to both*
; Audio? *Use FM of Auto or BYO*;
Parking Car/Truck? ; Chairs?
Discounts? Rainchecks? Walkins?**

CURRENT MOVIE LISTINGS

COMING SOON!

**Or Check MASI Web or
Facebook Pages for Changes!!**

If reading a printed Darter use this URL for current info: <http://www.skyview-drive-in.com/>



Coming MASI Programs

2017 MASI Dates to Remember:

7/20/2017	General Meeting	Holiday Inn Airport West	7:30 PM
7/29/2017	Summer Picnic	Rick Jokerst Koi Ponds	2:00-6:30 PM
7/29/2017	Council Meeting	Rick Jokerst Home	7:30 PM
8/6/2017	Auction	Crowne Plaza Hotel	9:00 AM
8/12/2017	Drive In Social	Sky View Drive In, Belleville	7:00 PM
8/17/2017	General Meeting	Dorsett Village Church	7:30 PM
8/19/2017	Council Meeting	Hellweg Home	7:30 PM
Sep-2017 TBD	Sailfin Social	Sailfin Pet Shop; Champaign, IL	TBD
9/21/2017	General Meeting	Dorsett Village Church	7:30 PM
9/30/2017	Council Meeting	Pat Tosie Home	7:30 PM
10/1/2017	SWAP	Crowne Plaza Hotel	10:00 AM
10/19/2017	General Meeting/SuperBowl	Dorsett Village Church	7:30 PM
10/21/2017	Bowling Social	Epiphany Lanes	6:00-9:00 PM
10/28/2017	Council Meeting	Corradini/Sultan Home	7:30 PM
12/2/2017	Council Meeting	Harrison Home	7:30 PM
11/16/2017	General Meeting	Dorsett Village Church	7:30 PM
11/19/2017	Auction	Crowne Plaza Hotel	9:00 AM
12/21/2017	Christmas Party	Dorsett Village Church	7:30 PM



Neighbor Club and Pet Shop Visit
Date to be Determined
September, 2017

CAFE

Champaign Area Fish Exchange



Save the Date: Oct 1, 2017 St Louis MASI Swap Meet

MASI FISH BOWL

EPIPHANY LANES 6:00 - 9:00 PM

Saturday, October 21, 2016





MEETING REPORT

MISC Contributors

May & June Raffle Winners Zoo Med, Hagen, Aqueon & MASI Products



Purchase raffle tickets at the meetings to help support your MASI and our Sponsors



MASI Challenge

2017 Net Busters




Stuart M Grant Fund



GOAL: \$2000+
Current: \$ 1615

WWW

NEW VIDEO





May - 6 Entries

Characins

Place	Fish	Owner
1	<i>Rummy Nose Tetra Male</i>	Chris Mohrle
2	<i>Rummy Nose Tetra Female</i>	Chris Mohrle
3	<i>Rummy Nose Tetra Female</i>	Chris Mohrle

Open Class

Place	Fish	Owner
1	<i>Butterfly Goodeid Male</i>	Klaus Bertich
2	<i>Butterfly Goodeid Female</i>	Klaus Bertich
3		

June - 7 Entries

Catfish

Place	Fish	Owner
1	<i>Synodontis petricola</i>	Chris Mohrle
2	<i>Synodontis petricola</i>	Chris Mohrle
3	<i>Albino Bristlenose</i>	Daniell Kinder

Open Class

Place	Fish	Owner
1	<i>Betta splendens</i>	Joseph Hughey
2	<i>Ram Cichlid</i>	Joseph Hughey
3	<i>Guppy</i>	River Kinder-Russell



Did your fish get entered?





MASI AUCTION MESSAGE

Mike Hellweg

The annual Summer Auction is coming up quickly! **August 6, 2017** at the Crowne Plaza St. Louis Airport, as always.

The Summer Auction usually features many pond plants and fish, along with the usual assortment of locally raised fish, aquarium plants, equipment, tanks and more. This time I understand **there will be several more tanks than usual**, so if you're looking

for a new tank, this might be the time to get one!

At the Summer Auction we will have four pieces of original artwork from nature artist Sam Scalz up for auction. He donated them to MASI and the proceeds will go to the MASI Challenge. They will be sold at 2:30 pm. See below for pictures of these pieces, and Charles will have them on the MASI webpage, too.

We will be trying something different this time for the raffle - a **50/50 raffle instead of a tank**. The raffle is a major source of funding for the club, and helps to cover the cost of the room. After the auction, please give us your feedback on the raffle.

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

Mike -
auktion@missouriaquariumsociety.com

MASI Summer Auction August 6, 2017!!



Available at the Venue!

Verbal & silent auctions running throughout the day!

Sam Scalz Original Artwork

Sells at 2:30!

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

New Raffle Options!!



CROWNE PLAZA®

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

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

Contact Info: auktion@missouriaquariumsociety.com



Mark Theby

SWAP CHAIRMAN**Fall SWAP - 1 October, 2017**

The 2017 MASI Swap meet is fast approaching, October 1st, with a number of tables still available. So if you have any fishy items you want to get rid of now is the time to do so. The first table is only \$30 or \$35 with power- \$25 for second table, \$20 for third table.

Payment for tables need to be to me by September 21st (MASI September meeting) so we can have a good idea on table count and layout.

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

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

Help make this and future SWAPs successes by advertrising to the public and all your aquatic friends whenever possible.

So on October 1st, mark those calendars for the 2017 MASI Swap.

So if you need a table or have any questions please

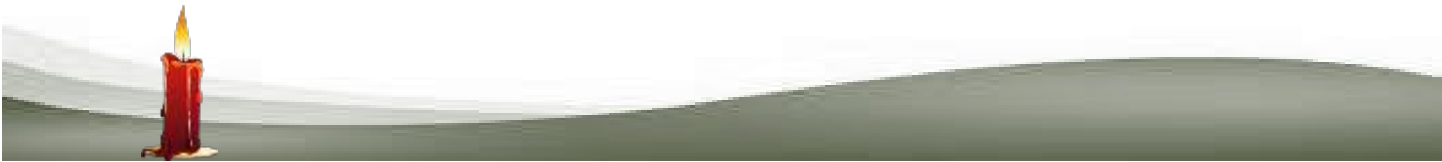
**Contact Mark Theby:
Call or Text:
314-688-2899**

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

Swap Guidelines:

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





Lynn A. Jacks

Long Time MASI Supporter

Obituary

May 16, 1959 - June 17, 2017



LYNN A. Jacks, 58 of Dyersburg, Tennessee died on Saturday, June 17, 2017, at Methodist Hospital in Olive Branch, Mississippi. Born Saturday, May 16, 1959 in Millington, Tennessee, he was the son of the late Ralph Jacks and the late Lenora Jones Jacks. Mr. Jacks was a retired accountant and had proudly earned the status of Eagle Scout.

Funeral services for Mr. Jacks were 1:00 P.M. on Saturday, June 24, 2017 in the Chapel of Johnson-Williams Funeral Home. Officiating this service was be Rev. Neal Chatham. Interment followed in Dyer County Memorial Gardens. Visitation was Saturday from 11:00 AM until 1:00 PM at Johnson-Williams Funeral Home.

He is survived by one son, Robert O'Neal Jacks (Catherine) of Somerville, Tennessee; one daughter, Holly Jacks Wyatt (Andrew) of Holly Springs, Mississippi and one sister, Jean Jacks (Chrissy) of Memphis, Tennessee.

In addition to his parents he was preceded in death by his wife, Rebecca "Becky" Jacks. Online condolences may be made to the family at johnsonwilliamsfuneralhome.com.

Johnson-Williams Funeral Home is honored to serve the family of Lynn A. Jacks.

About Lynn

TO MEET LYNN Jacks was to like Lynn Jacks. He had a warm smile and a great personality. I first met Lynn many years ago at an International Betta Congress convention in Nashville, Tennessee. He told me then that he wanted to become a certified judge. To become a judge requires a big investment in time and effort. The next time I saw Lynn he had indeed reached his goal.

Over the years I would run into Lynn at various fish shows and auctions. He traveled to Champaign, and Peoria Illinois as well as St. Louis. An effort was made to start a fish club in Tennessee but they were never able to get more than ten members as I recall. MASI became his home club and we all benefited from his presence. Many of you know Lynn best as the guy who won many of the big tank raffles at our auctions. I remember a swap meet where the prize was a 40 gallon breeder that I won and not Lynn. The prevailing joke was it was too small for Lynn to take home, he preferred the bigger tanks. The reason Lynn won so much was that he bought a boatload of tickets! He felt it was one way he could support the club. It reminds me of the old joke about the guy who kept asking God to

help him win the lottery. He asked over and over again and finally an exasperated voice from above was heard "Do me a favor, please buy a ticket." Lynn certainly did that and more.

Lynn will be missed by all, and the tank raffles will never be the same. Rest In Peace my friend.

Ed Millinger

IKNEW LYNN FOR more than three decades. I always enjoyed talking to him and seeing him at various MASI, Champaign, Peoria, and Memphis club events.

Lynn would come by the house and visit my fishroom when he was in St. Louis and we always had great fishy conversations. He was more supportive of MASI and other Midwest clubs than many of their local members were, and enjoyed traveling with several of his fellow club members from Memphis to visit hobbyists and clubs in other cities. In recent years, he won several 75 gallon tanks in our auction raffles, which would usually come home with me until he could come and pick them up a couple weeks later, as his car was always full of friends. Angela would even tease him that she would let me put those tanks to work if he didn't come get them

right away. Before the auction raffle drawing, I would always ask him if he had plans for what he was going to do with "his" new tank! Lynn enjoyed many of the same fish that I enjoy, so we always had something new to talk about. I'll miss those fishy conversations.

Mike Hellweg

LYNN WAS VERY active over many years in the Aquarium Hobby and supported it wherever he could. Most recently he has been instrumental in helping organize the West Tennessee Freshwater Aquarium Society, WTFAS, bringing several members to MASI auctions and other functions.

Lynn had already purchased his tickets to the 2017 IBC in Orlando, FL.

He was not only a supporter of MASI but also CAFE and TCTFS, functions for both of which he attended frequently. He was planning to attend the July 2017 CAFE Auction and use some of the Sailfin gift certificates he had accumulated.

Several Regional Aquarium Associations sent flowers and condolences.

To read more about Lynn, see the September 2016 Darter.

Editor





Rosemarie Kay (Rose) McCreary

Hobby Supporter, Friend and Wife

Obituary

November 27, 1955 - July 10, 2017



ROSEMARIE MCCREARY, 61, entered into rest Monday, July 10, 2017 at DePaul Hospital. Survived by husband of 33 years, Leroy McCreary; dear mother of Daniel Johnson; loving step-mother of Jennifer (Brad) Pashea, Matthew (Erin) McCreary, and the late Victoria McCreary; beloved grandmother of Connor Johnson, Jonathan, Alexander, and Sophia Pashea, and Madison McCreary; dear sister of Ronald (Mary) Trimmer, Patricia (Pete) Rochetto, and Judith (George) Thompson. Dear in-law, aunt, and cousin to many.

Rosemarie was employed at Ameristar Casino for the last 15 years. She was a member of the First Capitol Lions Club of Saint Charles, MO.

The family requests to honor Rosemarie with something purple, as purple was her favorite color.

In lieu of flowers, donations may be made to First Capitol Lions Club of Saint Charles, MO, 520 North Benton, Saint Charles, MO 63301.

Visitation was Thursday July 13, 4-8 P.M. at HUTCHENS Mortuary, 675 Graham Rd. Florissant, MO 63031. Funeral service followed Friday July 14 9:30 A.M. at HUTCHENS.



About Rose

MANY MASI FOLKS didn't have the pleasure of knowing her. Rose was active in MASI in the past, but more recently work and health issues got in the way. She was a die-hard guppy person and active in Gateway Guppy and the IFGA, too. She even served as editor of their newsletter for a while.

I remember when she and Leroy opened their shop - Guppies Galore. It was really great to have hobbyists running a pet shop. They even maintained a guppy hatchery in the stockroom and she was always happy to show off their latest breeding successes! Rose was always there with a smile, offering to order oddball fish and plants for MASI members if they didn't have them in stock. And the plants she kept going at the shop! Wow! When it came to MASI, she was always ready to help out - or to

loan Leroy to us! Even this past spring when she was rather ill and in a wheelchair, she was still helping at the ALA Convention, passing out food at the BBQ on Friday afternoon. I didn't get to see Rose much the last few years, but **I will miss her cheerful attitude and her smile.**

Mike Hellweg

ROSE HAS BEEN a long term supporter of the Aquarium Hobby and member of MASI along with her husband, Leroy.

Debilitating illness left Rose less able to greet the public but she continued to find ways to continue the hobby and its evangelism as a member of several Aquarium Societies. She was present because of the award winning guppies she and her husband created and

distributed across the US. Their basement is filled with plaques and trophies that show their reach and influence in the hobby.

Not just about Guppies - there are also several Angel fish around that show their hand from Rose's matching and breeding efforts. She sold in MASI Auctions over the past few years that showed her hand. Some currently reside in our tanks. She was present to help with the recent American Livebearer Association planning meetings and was present in the serving line at the Convention itself.

Rose continued to feed the fish while able and made special efforts, to Leroy's chagrin, to help around the house to give him additional time to pursue their support of the hobby.

Her eagerness to participate and help others in the Hobby makes her unforgettable.

Chuck Bremer





James H. Miller (Junior)

Long Time MASI Friend, Supporter and Mentor

Obituary

October 18, 1942 - July 11, 2017

ASLEEP IN JESUS Tuesday July 11, 2017. Beloved husband of Dolores Miller (nee Kirchhofer); dear father of Michelle (the late Shawn) O'Connor, Traci (Tom) Ludwig and Kate (Erik) Linders; dear grandpa of Brehanna Miller, Shane O'Connor, Kaila Ludwig, Jacob and Lucy Linders; dear brother of Joe (Sharlene) Miller, Debbie (Bob) Shook, Gary (Laura) Miller and Vicki Rancillio; our dear brother-in-law, uncle, great-uncle, cousin and friend to many.

Services: Visitation was at KUTIS AFFTON CHAPEL, 10151 Gravois Rd., Thursday, July 13, 4-8 pm then taken to Christ Memorial Lutheran Church (5252 S. Lindbergh, 63126), for Service at 11 am. Interment St. Paul Church Yard Cemetery. Donations may be made to Christ Memorial.



About Jim

For a trip to Jim's FishRoom see the May, 2017 DARTER

JIM MILLER WAS one of the most generous persons I have ever known. You could not get out of his fish room without him asking, what would you like, what do you need? He wasn't offering chintzy things either. He would offer 15 or 20 point fish routinely. Please join me at the next auction in a tribute to Junior. After the first item is announced let's all raise a finger in the air and say "One dollar!" Jim would love it.

Ed Millinger

IF YOU ATTENDED the MASI monthly meetings you couldn't help but know and love Jim "Junior" Miller. He impacted many in the club. I would like to share how deeply he will be missed by Tom and myself. I look forward to our club's monthly get-togethers for a lot of reasons, but one thing that always put a smile on my face was getting to talk with Junior. Not a meeting went by when he wasn't ribbing Tom about his "golf" outings, insinuating that I should be worried while winking at me with that ever-present twinkle in his eyes. And, without fail, whenever I bid on an item that Junior was bidding on in the mini auction, he adamantly kept his hand up, frequently glancing back at me with that sneaky smile. However, under all of his ribbing of Tom and

me, he was the most thoughtful, caring, and generous man. He always offered advice on how to get tricky species to spawn. On many occasions he surprised us by showing up to meetings with buckets containing beautiful specimens from his own collection for us, challenging us to try our hands at breeding them. We still have a few tanks of his fish - they always arrived healthy and happy and I will do my best to see that they remain that way. I am saddened that we were never able to see his fish room in person. I always thought we would have time to do this. Words just cannot express the empty space that will be left in MASI by Jim's absence. Rest in peace, dear friend. You will be missed by all.

Debbie Sultan

IFIRST MET JUNIOR at the first MASI show I attended back in the mid 1980s. He had a big grin, a strong handshake, and was a bit loud, but he was also very affable and knowledgeable about fish. Unlike some MASI folks at the time, he was also more than willing to share his experiences with this rookie. He greeted me with a smile and a handshake every time I saw him.

Over the years, he was always there to help with any project that MASI did.

Whenever we had setup for the annual show, he was there with his tools to help set up. When we hosted conventions, he was one of the first to ask what we wanted him to do. He was a master at selling class sponsorships and could usually sell them all before the meeting was over. When he found out we needed a new home for the show trailer, he offered us space on his lot, made sure the trailer was where we needed it when we needed it, did the many repairs on it, and even made a huge 4 x 8 foot sign to advertise the auction. He sat in the front row at almost every club meeting, and when he wasn't at church on auction Sundays, he was right in the front row at the auctions, too. He was well known to almost everyone for starting out bidding at a dollar, and giving homes to fish and plants that no one else would want.

One time when my truck broke down, he offered to tow it to his shop and let me use his lift over the weekend to work on it. Another time when I was looking for a cover for the truck bed, he had his supplier call me and offer his wholesale price to me for the cover. I never even asked, just mentioned that I was looking. When I wanted a bed liner, he suggested I look at the liquid liners instead. 18 years later, I'm still using that





Jim Miller (Junior) Long Time MASI Friend - Pg. 2

same bed and that liquid liner is still holding up.

Whenever I bred a new fish, he was there with a big grin saying "good job". If it was an "easy" fish, he was there, teasing me about how easy it was. Whenever he bred a new fish, he was always there with a bag of fish for me saying "here you go", right up to his last meeting. His fishroom was a happy place well known for his big tanks with plants growing right out the top, with small tanks hanging from the ceiling, and for all the fat, happy fish. There were breeding projects going on all over the room. His latest was working with several lip brooding pleco species. He would often call asking for me to look for fish that he had seen in a magazine or book. Often they were fish that just weren't available in the trade. He'd always say "okay, just remember me if you see them".

When his lifelong friend Reet Thomas (another MASI member) passed away, he lost interest in selling fish food to the club. They used to sell foods as R & J Fish food. He told me the reason he did it was because he enjoyed spending time with Reet, not because he wanted to sell fish food. He asked me if I wanted to take over, and introduced me to their supplier, through whom I met my current supplier. I asked him how much he wanted, he said "just make sure MASI folks get a good deal".

We used to go out to Denny's and later Steak and Shake after the general meetings, and he was always joking and laughing and teasing. Right up to the June meeting, he was there laughing and joking with me, teasing me about "volunteering" to be the ALA Convention chairman, asking me what convention we were going to do next, and being just a bit too loud for Pat, even when he was whispering. His "whisper" was a low roar.

I'll miss that low roar, the smile and the jokes. Rest in peace my friend.

Mike Hellweg

JIM WAS A great guy and a great MASI member. I've known Jim now for over 30 years. He always greeted everyone with a smile and he was there to help. You could always count on Jim to have the best fish in show or runner up at the annual show.

The show chairperson could always count on Jim to get all of the classes sponsored. He had a way of getting people to say yes! Heck of a fish breeder and very funny guy. I'm going to miss not being able to tease him at our MASI mini auctions on his dollar bids. He will be sorely missed.

Gary Lange

IF JIM HAD a theme song, it would be "I'll bid a dollar" You could always find him sitting on the front row at all of our meetings and auctions, bidding a dollar on almost anything that came up. If the item was already at five dollars, Jim would still bid a dollar, which always drew a laugh. Jim was a very accomplished fish breeder but didn't brag a lot about it. He started participating in the Breeders Award Program in 1982 and continued to participate thru this year. He was one of only five members in the history of the Missouri Aquarium Society to achieve the "Most Exalted Grand Master Breeder" award. He had 41 1st MASI species spawned to his credit.

Jim liked to show his fish and he was always a top participant at our monthly bowl shows and annual shows. In fact, without his entries, we likely would have discontinued the program for the limited non-Jim submissions. At one of our shows, he had a spiny eel that was judged best fish in show. But by the time it was awarded at the banquet the next night, the dang thing had jumped out and died. It's the only time I recall that a dead fish won top award.

But Jim did a lot more to support our club, some of it unheralded and behind the scenes. When we finally left (escaped) the Stratford Inn, Jim arranged for us to have our auctions and shows at the Masonic Lodge on Gravois, where he was a member. He always got there early, to open up and arrange tables and chairs, and then stayed late, to clean up and put everything back in place. When we used to have larger shows, we had large wooden racks to hold all of the show tanks, and a trailer to store them in. Jim found a place to store the trailer and always towed it to and from the shows. And, since he was there at the start and finish with the trailer anyway, he would always help with setup and teardown. We once had someone donate an eight foot, 300 gallon acrylic aquarium to the club, with the provision that the club remove it

from the house and cart it away. Once again, Jim stepped up and volunteered to take this on. He rounded up a crew and a truck to move it, stored it at his business until it was sold, and used a forktruck to lift it into the buyer's vehicle. It was because of these type efforts I proudly presented him with the "President's Service Award" when I held that office.

Jim's presence will be missed in many ways; we'll remember more of them as time passes.

Godspeed Jim

><)))>

Steve Edie

WHERE DO I start? For some of the old guys. You know Reet Thomas and Jim Miller were very good friends. These two guys are the guys who got Harold and I in the club about 23 years ago. Now, Jim will shake Reet's hand again as he joins him in heaven.

Jim was a guy who always helped everyone out. If you wanted fish, Jim will give them to you. If you wanted advice Jim was there! If you wanted to talk BS. Jim was good at that too! Jim was a great breeder and friend. He will be greatly missed. He was the one who perfected "One Dollar". Jim would always yell that at John VanAsch and John would yell back and say "One Dollar" from "El cheapo". Jim always joked around with us. I remember Jim put a box of duckweed in the gift exchange during the Christmas party. I believe he wanted Gary Lange to have that box. Now, all that will be missed.

Rest in peace good friend!

Derek Walker

MUCH HAS ALREADY been said about Jim, all of it true. I have only known him a few years but felt befriended in a big way. I only visited his fish room twice but learned tons each time and have changed several things about how I handle my own fish as a result. Jim continues to improve my fish keeping.

Yes, he gave me fish too, and I gave him some back. I always felt the winner either way. He was a big character and had a big heart and I felt the influence of both.

At future auctions we should start all bids at \$2 because we know Jim already has the first bid at \$1- just pushing and daring us to move it higher.

Chuck Bremer/Editor



COLLECTING in FLORIDA

-
By Chuck Davis

Reprinted from the North Jersey Aquarium Society's "Reporter" of 2016 and Greater City Aquarium Society - New York's "Modern Aquarium" of July 2017

Part I: SOME COMMUNITY KEEPERS

MOST OF MY collecting here in Florida has to do with getting a bucket of feeders for my predatory cichlids and catfish. But in every net full of 'feeders' you may find some 'keepers,' as they all live together in the wilds of south Florida. The feeders are mostly *Gambusia*, but often include *Urophthalmus* and bluefin killies.

***Poecilia latipinna*, the green sailfin molly**, is often both 'keeper' and 'feeder.' Small ones are used as feeders, and the larger ones I keep for my salt-added community aquarium. The larger ones are getting harder and harder to find, especially in 100% freshwater. In fact, in order to collect decent sailfin mollies you must go to some of our brackish water sites. We keep these collecting locales in the 'top secret' mode, because of the scarcity of these magnificent fish. Though the lesser sized and lesser finned ones seem to be

all over, the adult fancies are quite elusive.



Sailfin Molly Male



Sailfin Molly Female

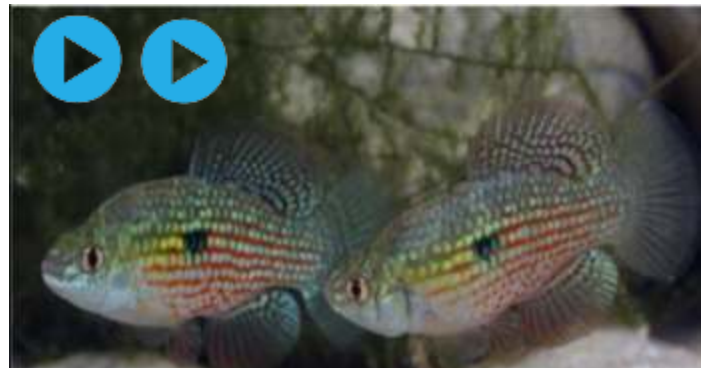
These fish, like all mollies, are easy to sex. The males have a very different dorsal fin, that will spread out wide and contains some definitive color and markings (as pictured above). The females are more robust in the belly area and certainly lack the impressive sailfin dorsal. Courting often includes the male showing off that dorsal to the female in a much annoying performance, especially if other males are present. These mollies are often found in shallow water and near vegetation if available. In the home aquarium I add about a tablespoon of salt (kosher) for every five gallons of water. It seems help preserve them and doesn't affect any other tankmates or live plants.

A second favorite fish for collecting is the American Flagfish, *Jordanella floridae*. They are certainly plentiful down here, but catching the larger adults is often an elusive challenge. I think most of the answer lies in two scenarios: first, catching large ones might be seasonal. I find that the spring is a more likely time to get

the adults. Second, location is a factor. The adults tend to be in thick vegetation near deep water, while juveniles hug the banks of the canals and waterways. The deeper you go into the Everglades, the better your chance of finding adult Flagfish.

Flagfish do spawn in captivity, mostly in well planted aquariums. Eggs are laid in clusters in the plants near the surface. Males do a good job of protecting the eggs and fry, while the female is basically ignored after spawning. Before spawning however, she is harassed constantly. I find that a few flagfish in a community tank serve a wonderful purpose: algae control.

Once I had a hair algae problem. It was growing all over a beautiful large amazon sword plant. A club member suggested a few flagfish, which are readily available (as opposed to some



Florida/American Flag Fish

small plecos which would require a purchase). He was correct. I added four *J. floridae* to the aquarium, and in about a week the hair algae problem was under control.

Though they are Cyprinodontids, they are considered closely related to pupfish, and are a desirable aquarium fish in many countries. We have a club member from Russia who is thrilled to catch them. He is basically a killie and plant hobbyist, but often collects these *J. floridae* to ship overseas to trade for killies & plants.

The third fish, *Heterandia formosa*, is also native to south Florida waters. This fish is often called the least killie or mosquito fish. These *Heterandia* are definitely the smallest



fish I have ever kept in an aquarium. I think they are the smallest livebearer of all. In fact, some experts say it is the 7th smallest fish in the world.



Heterandria formosa Male



Heterandria formosa Female

When netting fish these livebearers show up infrequently, but not rarely. They are small, averaging just above and below an inch long, so finding them in a net full of *Gambusia* requires careful observation. As with most of the other fish mentioned here, I just net and bucket them all, and sort them out in a clear container at home. Most of these fish prefer to be kept in a tank with live plants. They are usually found in growths of *Anacharis* or *Sagittaria*. I do add a spoon of kosher or sea salt every once in a while.

Part 2: The Attractive Cichlids

COLLECTING IS GREAT fun, and more importantly, it is exciting. You just never know what will be in your net at each pull! In this chapter I'll talk about mostly cichlids. Not the giants (that's Part 3), but a group of



Cichlasoma salvini

medium sized cichlids often found in the aquarium trade.

Pictured above is Cichlasoma salvini, a simply gorgeous fish of the mid-size cichlid group. We catch them at all sizes from an inch to six inches. Once with Mike Sheridan (RIP) I dipped into a canal on Griffin next to a Jewish cemetery and came out with a pair of salvini that were lit up like Christmas trees! They must recently have, or were just getting ready to spawn. Wanted to put them back, but the law is that if you remove a non-native fish, you cannot return it to the waterway.

In a surprise to me, after a few months in my aquarium they never lost their color. Of course they were fed a diet of live black worms, frozen blood worms, chopped shrimp, small *Gambusia* and an occasional grass shrimp, as well as an assortment of dry foods, flakes and pellets. They spawned once, but they either ate the eggs or the fry upon hatching. Subsequently they were sold at the ACA auction of that year. I didn't know how to label them-wild caught? Domestic? F79?

Among the many cichlids we have collected, the firemouth has been one of the most interesting. Always one of my favorites (as evidenced by my tattoo), I enjoyed catching a few of them. The location for these guys was a deep pond just south of the Miami Airport. Unfortunately, since 9/11 that area has been off-limits, and we have not found another location for them as yet.



Firemouth

Another much maligned cichlid that we catch here in south Florida is the black Acara. This is a great fish. We rarely catch any large ones, I assume because they stay in deeper water, but we often catch juveniles from 1 to 3 inches. I think they have magnificent markings. Each scale is framed in black, out-lining a special

pattern, along with a deep black lateral line accented by two almost circular spots, one mid-body, and the other at the top of the caudal peduncle.

They get to a good size, about 8



Black Acara

inches. They are hardy fish, and pairs remains relatively civil to each other and spawn readily in most circumstances. These fish are found in many completely unrelated locations: the Griffin Road canal, the Route 41 canal, and just north of Oakland Park Blvd. in many canals.

In a previous article I have talked at length about jewel cichlids. They are always found in various spots along the Griffin canal, some county park lakes, particularly at a place called Wolf Lake, where equestrians take horses for a swim, which we refer to as Jewel Lake. We use dip nets, but also have great success with minnow or killie traps. They come out of the lakes and canals bright red, and if fed well they stay that way.

I cannot speak to the resulting fry color of a captive spawning. I do know they are quite easy to breed in the home aquarium. I consider them to be good parents and a joy to have as a pair. What I've noticed about the ones we catch is that they take to eating in captivity almost immediately. Other species usually take five days to two weeks.

Once in a rare while you can catch other African cichlids in certain



Jewel Cichlids





quantities of them. They are very interesting to watch in an aquarium.

At the top of the page you'll see a Spiny Eel. I have actually never caught one, but during the great cold snap five years ago, thousands washed up dead on the shore at a common collecting site.

Part 3: The Big Stuff!

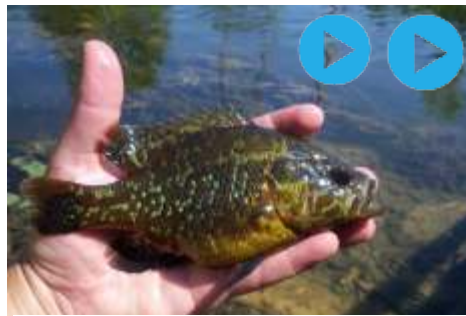
OF COURSE WE start with a fish that may well be called the backbone of the cichlid hobby—the **Oscar!**

Interesting thing about Oscars in the 'wilds' of South Florida: I never catch any babies! We catch young adults (4-6 inches), and we catch the adults (8-12 inches), but I have never netted an Oscar in the one to two inch size range.

What I have seen were two adult Oscars that were caught on a cane pole, using corn as bait, that were a solid bright orange-red. We do see mostly tiger Oscars, but occasionally get tiger-reds. We have also caught some that have a 'different' fin configuration, and others that have 'weird' markings. The Oscar has now been officially labeled as a game fish by Florida Fish & Wildlife.

Perhaps the second most popular of the big cichlids is the red devil. This fish is predominantly caught in the canals of Miami/Dade. It is caught in all of the usual color variations, from brilliant red/ orange to the juvenile markings that seem to never fade. When observing them in a

areas—mostly south of Miami. These are usually escapees from farms, which occurs during severe weather events like hurricanes, though some claim that much of the distribution of invasive species is caused by natural phenomena



Warmouth (*Leponius gulosus*)

The photo at below left is a giant apple snail. Certain canals, like the Boca-Rio Canal, produce great



Apple Snail

Oscar

like birds catching and dropping fish. I cannot disagree, as I have seen large birds like herons walk right up to my bucket, with me standing there, and take out a large jaguar or Midas cichlid and walk away with it. So I guess any reasonable explanation is possible.

Just to get away from cichlids for a few minutes, we catch other interesting animals in our canals and lakes, including much of the Everglades. Above is an interesting fish called the warmouth (*Leponius gulosus*). A sunfish, it is very cichlid-like in looks and behavior, meaning it can be mean, predatory, territorial, and aggressive. We catch the small ones in nets, but the larger ones (6-10 inches) on a hook and line using live worms as bait.



canal (where they are one of the top predators) they school mostly by size. I have seen a neat locale where the adults roam freely, while juveniles often run to the safety of a submerged shopping cart.

The best way to catch them is to use a cast net when they are schooling, but of course a rod & reel will get you a



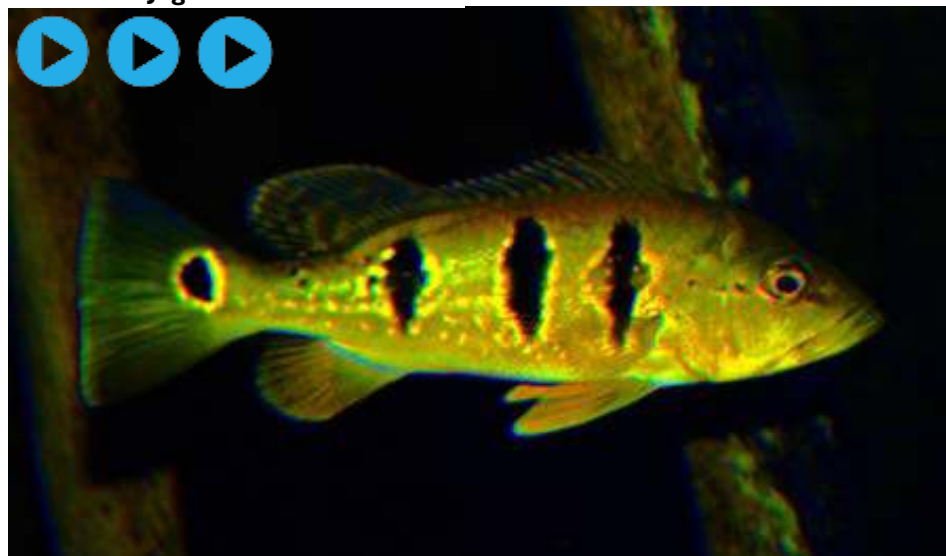
Red Devil

few big ones, using earthworms as bait. These 'wild' or 'feral' red devils are tough, and will destroy tank raised devils.

Another very popular fish with those who keep big cichlids that we collect in South Florida is the jaguar cichlid, which has become more



Jaguar Cichlid



Peacock Bass

common as of late. Caught mostly on rod & reel using earthworms as bait, hooking sub-juveniles from 4 to 8 inches is quite easy. And surprisingly, though they seem to hang out together in storm and transfer pipes, they are usually in perfect condition when caught. Again, these wild caught fish are too tough to co-habit with tank-raised specimens.

Clown knife fish are breeding in Lake Ida in Palm Beach County.

They are caught using surface lures that depict bait fish, frogs, and large



Clown Knifefish

insects. Not found elsewhere so far, and having few if any predators, they do well and grow large. Not too often are they taken as pets, but ones that do have ravenous appetites for live foods.

Snakeheads are found everywhere, but so far have eluded me. They are fished often because they are good eating. Other than that, I think they don't serve us well as aquarium fish. They are strong, fast growing, ferocious eaters.

We can't talk about big cichlids without casting the spotlight on one of the biggest, the peacock bass (below). There a few different species of peacock bass, and they are all big,



Snakehead

tough customers. We net plenty of juveniles, and occasionally get a sub-adult. Adults, an official Florida game fish, are caught on rod and reel—not live bait, but mostly on lures that look like bait fish. The Everglades is full of peacocks, and locals actually have tournaments for this big aquarium fish. Top catch so far is about an 18 pounder.



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Though we catch quite a few different varieties of Tilapia, even hybrids, the only two worth talking about as aquarium fish are *Tilapia mariae* (above) and *T. buttikoferi* (below). Both are known in the



Tilapia mariae



T. buttikoferi

aquarium hobby and are reasonably attractive. Small ones are plentiful and everywhere here.

A much maligned, but what I would call an extremely attractive cichlid that we find in almost every canal, is the Mayan cichlid, ex-*Cichlasoma urophthalmus* (below). It bears a bit of a resemblance to the ever popular Festae, or Red Terror, and is sometimes referred to as the false Festae. Mayans do well in all their adopted habitats. They are an



ex-*Cichlasoma urophthalmus*



aggressive cichlid, that is to say they are the first to fight, first to eat, and first to spawn. We observed them well during the drought a few years ago when fish were layered in the eddies, and though they were down three or four layers in the water column, when we threw in the bait (food), they were the first to hit it. But they look better in the wild than in a tank.

Above is a common pleco. We actually collect two or three varieties of plecos, catching mostly very large or very small specimens. The medium size ones are pretty elusive. They adapt very easily to tank life. I put a 12-incher into a 75 that was algae-riddled, and in two days viewing was as clear as in a new tank.

So you see we keep quite busy netting and catching fish. It's time enjoyably spent.

Photos from GCAS Reprint

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Spawning *Buccochromis nototaennia* The Stripeback Haplochromine African Cichlid

By Mike Huber

BUCCOCHROMIS NOTOTAENNIA IS found in Malawi, Mozambique, and Tanzania. I kept it in a 135 gallon tank with water temp of 81 F and pH of 8.2 with the water hardness as it comes out of the tap in Jefferson County, MO. I have not checked the hardness but it is on the hard side. As with most fish they will adapt as long as everything stay's consistent.



I looked up the fish when first receiving them and found a suggestion of 75 F to 80 F, P.H. 7.5 to 8.8 and hardness of 10-25 H. The tank I wanted to use already had Rioft Lake Africans in it that had spawned. So I included the *Buccochromis* with them.

Food consisted of several different flakes foods that were



rotated so the fish ate a different one each day for eight days. They were fed in the mornings before I went to work. Then Irene would feed them from 4 different pellets in the mid day when she fed the other fish. Additionally in the evenings on weekdays they got one of either live black worms, earth worms, Repashy meat pie, tadpoles, frozen brine, or frozen blood worms. (*For you squeamish people don't read, but they had small live fish almost always available.*) **Weekends they would sometimes get fed 5 or more times a day-** Irene likes watching them eat and I would fix more prepared foods for them.

Because they were fed so much they got a 30 to 40% water change twice a week. The tank has a lot of rock caves and small gravel. It also has a sponge filter, a Whisper 3 and an Emperor 400 with bio wheels. I don't think the gravel size matters as they are a mouth brooder.

I was cleaning the tank when I saw a baby swimming in the java fern. Then I watched till I saw a female with her chin bulging like all mouth brooders. It was a challenge to catch her and put her in a hang on outside of the tank trap that circulates the tank water thru it. She spit the babies out but when she would see you she would suck them back up. I told

Irene she spit out the fry so she went to look and thought I was pulling her leg. When the female *Buccochromis* could not take the fry back into her mouth I moved her to another trap so she could be fed a lot before putting her back into the tank and would be harassed by the male.

The fry were raised in the trap for two weeks then moved them to a ten gallon tank then further to a 20 gallon. These fish like to swim in open water so I kept the front half of the tank open above small plants that were in the tank.

I did not see any aggressive behavior toward other fish except when they spawned.



The biggest challenge was fixing all the different food to get them to spawn!

Photos © Seriously Fish
& Top Notch Cichlids



Melanochromis kaskazini

Formerly called the Northern Blue Mbuna

By Patrick A. Tosie,
Sr.



THE GENUS *MELANOCHROMIS* is in the cichlid family and is currently comprised of fifteen different species, all endemic to Lake Malawi and rock dwelling fish that are commonly referred to as mbuna. All of the *Melanochromis* are maternal mouthbrooders. Described in

dominant males have striking blue coloration and lose just about all their stripes when breeding. Females are very light blue and have the two stripes. They eat most prepared foods that are offered them- I feed mostly Cobalt breeder flakes and Cobalt color flakes.

I bought some *Melanochromis kaskazini* juveniles at the 2016 American Cichlid Association Convention, not really knowing much

about them. When I brought them back to St. Louis, I was just finishing setting up a 75-gallon tank at my office and decided to put them there along with some *Hemilapia oxyrhyncha*, *Psuedotropheus saulosi* and *Labidochromis caeruleus* that I purchased at the ACA as well. The tank is planted

and has numerous holey rocks stacked throughout giving multiple hiding spots. The temperature is kept between 78 to 80 F. This tank is in a high traffic area but the fish do not seem to mind as they are constantly swimming about.

After I have had the fish six or seven months, the fish became mature enough to breed. The *M. kaskazini* were very active. It was not uncommon to see three females holding at the same time! The dominant male was constantly on the prowl and he would rule the tank, any fish that came near him would be chased away. Males are very hard on each other and on the females during breeding times.

Rarely did I leave females holding, after seven to ten days I would pull the female and strip her of the fry. There were a few times when she released into the tank and when that happened, the fry would almost always end up as dinner for someone. When stripping I would get twenty to thirty fry from each female.

I have enjoyed my *Melanochromis kaskazini* as they are a very lively and colorful species to watch. When people come into my office, they always comment on these beautiful fish.

I started with twelve juveniles and they all grew to breeding size, however, once they started breeding I lost a few to overly aggressive behavior and currently have seven adults remaining- five males and 2 females plus a few fry that have survived in the tank and are growing up.

The 2017 American Cichlid Association Convention was in Detroit July 13-16. It is always a great place to



2009, *Melanochromis kaskazini* are the largest of the *Melanochromis* species, reaching a total length of six-inches. Males are dark blue with two very dark blue/black stripes running lengthwise, one at the base of the dorsal fin and one mid-body. The





go to get new species of cichlids (some bring catfish, livebearers and other fish as well) and I look forward to it every year.

Wonder what I brought home this year??

Photos by the Author

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SKIFFIA bilineata

Two Lined Skiffia or Blackfin Goodied

By Mike Huber

WHEN I BOUGHT the fish at the monthly club auction I put them into a 30 gallon tub that sat on the floor of the fish room so the temperature would not get to hot. The tub had a sponge filter and a lot of plants in it.

When I first got these Skiffia I looked them up on the Internet and found: "these fish normally hide in vegetation around the edges of the collection points". The tub I kept them in had hornwort and anacharis that almost choked the tub out. The tub temperature varied only a little from 70F-72F depending on how often the heater in the room came on with them sitting on the floor. The pH stayed between 7.0-7.2 with water changes done 1 or 2 times a week and all the food they would eat. I tried to keep them between p.h. 7.0 - 7.5 and a temperature of 68 F - 74F.

Like all my fish they have a healthy appetite after a few weeks and ate flakes

really well but only got them one time a day from several different types that I get at our club meeting. the second feeding that Irene gave them was usually Repashy© meat pie, frozen

parents probably liked when I feed baby brine shrimp so they could eat them also. But I could not see thru all the plants or the sides of the livestock watering tub if the parents ate the



brine shrimp, and frozen blood worms. The third feeding, which I feed them, they usually got live food -mostly black worms -but also fed them chopped earth worms and wax worms that I bought at the store.

When I saw babys swimming at the top of the tub they would get a lot of micro worms and baby brine shrimp and then banana worms. The

shrimp.

Like all our fish, **on the weekends they got fed 5 or 6 times a day** with both Irene and me feeding them. Irene loves watching the fish eat even though most of them get so greedy they splash her. After a few weeks I moved them to a tank to raise so I could watch them better.

Image Copyright © Roman Slaboch



Hobby Hacks

-
By Rick Renfro

ONE OF THE most exciting parts of joining Missouri Aquarium Society is that there are so many experienced hobbyists who are open to share their knowledge and friendship. As a newer hobbyist, the possibilities seem limitless when seeing what some members are doing with their interest in keeping fish. I currently have just two tanks and might add one or two more.

I suspect that I will probably come up with a monster system eventually, but for now these are keeping me busy and I am having a blast working to maintain these two tanks and **learn how to create and support sustainable ecological systems.** Success in this effort means happy little guppies and catfish.

I am an obsessive catfish fisherman, and have gone as far as building a 16' wood skiff, but mostly I now use a 14' fishing kayak. The original skiff was built from blueprints drawn by Phil Bolger who focused on designs that the average



craftsman could build. This particular skiff is used for inshore lobster fishing, hauling traps in and out of bays and inshore beds and was relied upon for years. I continue to fish Missouri, Illinois, Kansas, and Louisiana in my kayak but building the skiff allowed me to learn that I can create things and building them is fun and educational.

I am resigned to the fact that I simply will not become a scientific sort of hobbyist, rather, I might have some build ideas (hacks) that may be of interest to any aquarist. In a YouTube

this system along with the two modifications to the classic Hamburg Matten filters I use in both my tanks.

Guppies and Greens

Paired with the Matten filter, the aquaponic filter track adds a fun and interesting element to this set up. The additional filtering from plant roots absorbing nutrients and the additional surface area of the grow media supercharge this system. I really like fresh basil which grows well in this application, but also I am experimenting with emmersed water wisteria and some mosses.

The track is made from pvc parts available at most hardware stores. The basic tools I used are a pvc pipe cutter (worth every penny!), a couple hole saws and



Aquaponic Filter Track

video a club fish keeper said, "Every one of my tanks is an experiment" and at the March meeting it was commented to me about the aquaponic filter track I built above my 75 gallon tank. I want to share a description of

drill, pvc glue, ruler and tape measure. The track runs on a small submersible fountain pump. Basically, the small pump is placed high in the tank so that in case of a track leak the pump will only drain about 10 gallons instead of





Pump & valve moving water UP to the track

75. The water is controlled by an adjustable valve below the track and enters through a bulkhead in the bottom.

The track is made from a length of pvc gutter, this one is 5' long. The ends are the gutter caps matching the gutter tracks and are glued on and sealed with silicone. Obviously the track can be any length, and multiple levels can be added easily -requiring a stronger pump as the lift increases. The outflow uses the same diameter bulkhead as the inflow and the track empties behind the matten filter into the aquarium. Both the inflow and outflow bulkheads are protected from the filter media by plastic mesh grow cups used in hydroponic and aquaponic applications.

I use expanded clay balls for growth media, so there is no soil in this system. I don't use Sphagnum moss since that lowers ph levels. The clay balls give a huge surface area for bacteria growth sustained by the constant water flow through the track. The plants draw the nutrients from the flow, then the water reenters the aquarium cleaned and oxygen rich. The water is then pumped back into the tank by a pump behind the matten filter, so the water reentering the tank has either traveled through the aquaponic filter track or the Matten filter before returning to the community area of the tank.

I have no idea how to estimate the surface area of the track and media,

but the Matten filter is 1,071 square inches of sponge material at 30 ppi (pores per inch) which adds to a whole darn bunch of places for bacteria and infusoria to live.

If you want a more exact depiction of this system let me know, I will be happy to help if you are interested in building your own system, or if you want to know about my experience with the Matten filters. My email is arrenfro@me.com.

It's Called a What Filter?

I am convinced that Hamburg Matten filters are one of the superior solutions to many problems that either small or large scale aquarists encounter. Matten filters are highly efficient, require basically no maintenance, and are low cost systems to set up and operate. They are not



Track gravity return to tank

limited to just breeder and shrimp tanks, and can even be modified to take up just a back corner instead of the entire side of the tank if a show tank is the goal.

Three great sources for these filters are Angels Plus, Swiss Tropicals, and Flip Aquatics. Be cautious of the very cheap sponge materials sold on Amazon, since many of these extremely low cost sponges are made in China and are reported to have a harsh chemical odor or who knows what else. Low overall cost does not mean low quality or even low initial cost but I feel that paying for high quality up front always means lower overall cost. Research is important!

This webpage from Seriously Fish is a very good article on the history and options for a Hamburg Matten filter; www.seriouslyfish.com/a-basic-guide-to-the-hamburger-mattenfilter/

In my 75 gallon tank I use a 3" thick filter which is fairly ridged across the tank width and height without buckling and needs no additional support. Behind the filter I use a Rio 1100 pump that pushes about 280 gph with the 20" rise above the filter sponge, and this pump is silent. I don't restrict the flow which is too much for my guppy tank, so I feed the outflow



Mattenfilter placement

through a sponge pre-filter to disperse the high flow. This pre-filter alone is almost the same as a conventional sponge filter, or the amount of surface area in a hang on back filter. (Can you have too much filtration?)

Since I have been testing this tank over the last 3 months, every parameter has come out perfect. I had to add some Osmocote granules to the track to increase plant growth, sparingly of course. Even the added nutrient has not caused any difference in algae growth, but the plants are loving it both inside the tank and in the track.

In the 20 gallon tank, the Matten filter will be added this week. Since this tank is on my desk, I originally chose to use an Aqua-Clear 20 filter with a sponge pre-filter, thinking I will have more room in this smaller tank and the hang on back



(side) filter is said to be a solid filter - but it's not proving to be as affective as the Matten filter, certainly not as fast to cycle the tank.

My plan was to cycle the tank for a few weeks using water from the 75 gallon tank and the gunk from the sponge to start the bacteria cycle. Plans are fine but reality is the ultimate modifier of careful planning. One of my Guppy females is huge and gave birth before this tank was ready. She had at least 40 fry, and that was after the initial fry feast that subsided after the first two days. I did not want to loose all these babies, so I put 20 of the fry into the new tank that had only run a few days. Now there are at least 20 fry in the colony tank and an additional

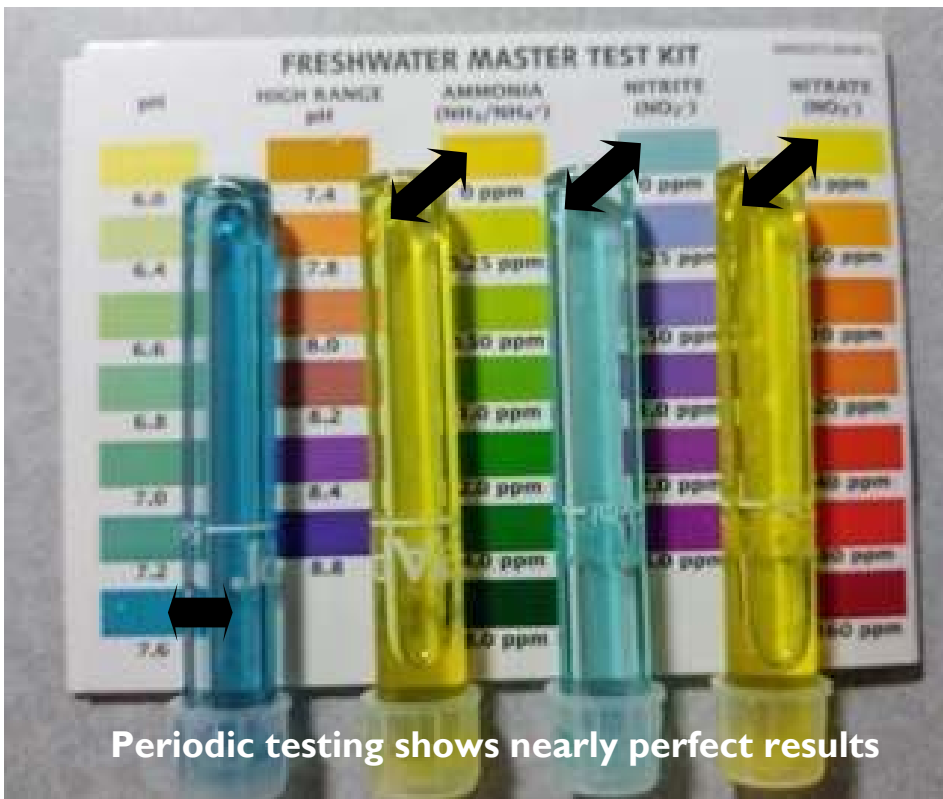
to fit front to back so that I can hang the Aqua-Clear filter on the side instead of the back.)

The consistency and efficiency of the aquaponic system in my 75 gallon tank is proving helpful as I recover from shoulder surgery. Water changes are difficult, and with the daily changes needed by the new tank, I have been putting off changing the water in the 75 gallon aquaponic tank and only adding water as needed.

I just tested the water after 3 weeks and the results are typical of the chemistry that has resulted all along, **no ammonia, nitrite or nitrate levels and ph remaining at 7.6**. I buffer the water with crushed coral and limestone for the Guppies and Endlers.

found this at Walmart in poster board size, the length is 30" which is exactly the length of the 20 gallon long tank I just set up. I bought two so that I could use one piece for the background and the other under my tank to compensate for any deviation in the desk surface avoiding stress on the glass. These boards are colored throughout, so this is basically invisible when looking at the tank. As a background it works perfectly, is non reflective and very black, and is much easier than painting. I attached with rubber cement on the aquarium frame at the four corners so that the glue can be easily removed if there are changes in the future.

Photos Provided by the Author



20 in the new tank. I am testing the new tank daily and have been doing daily water changes because of elevated ammonia and nitrate levels.

Since I had not seen elevated chemistry with the big tank before, the presence of ammonia and nitrate freaked me completely the (whoops!) out. I am still going to use the Aqua-Clear filter instead of a pump or air tube, but I'll modify the outflow to send water over the Matten filter. The other element is a type of aquaponic set up, but for now I am using Pathos hanging between the cover plates. (I made the cover plates out of old shelf glass, cut

Special Bonus Hacks

Do any of you grow and feed infusoria? I am feeding my guppy fry using a drip system. I strain the organisms through a coffee filter then dip that in a glass, then start a siphon using an airline and airline valve to drip the beasts into the tank. It took just minutes before the fry and the Endlers started feeding. This is free fry food from your filter.

A great background and a leveler for a new tank set up is the foam poster board from Elmer's. I

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Minifins

Tanichthys albonubes

The White Cloud Mountain Minnow

A C.A.R.E.S. Species

Mike Hellweg, CFN
(Certifiable Fish Nut)

THE WHITE CLOUD Mountain Minnow, or more simply, the White Cloud - When deciding which species to write about for this issue, I realized that I've never written an article about my favorite aquarium fish.



Males of the ornamental long-finned strain in aggressive mood.

It has been in the hobby since the early 1930s and I first discovered it as a child at Katz drug store on the Halls Ferry Circle in the late 1960s. It may seem strange now, but back then



Adult male specimen from the aquarium trade.

H-J Chen

many drug stores, 5 and Dimes, department stores, hardware stores and even Sears sold fish! At Katz, they were available for the then (to a 6 year old!) princely sum of 29 cents. This was compared to the price of a common goldfish - 5 cents.

I remember the lady who worked with the fish told me I couldn't have a white cloud in my two gallon goldfish bowl with my fantastic first fish, Goldy the goldfish. She also taught me (and Mom) about having to have live plants with fish, doing weekly water changes, feeding sparingly, and that when my goldfish was at the surface it was stressed, not begging for food and that I should do a water change right away.

For a few years I had to stick to my lone goldfish. But when I got my first tank, a 10 gallon metal frame tank, White Clouds were one of the first fish I had to get. I have had them pretty much ever since.

History

The White Cloud story begins with a Chinese Boy Scout named Tan sometime in the late 1920s. He allegedly discovered the fish and his scoutmaster gave some to the Chinese ichthyologist named Lin. In 1932, Lin

described the fish in Tan's honor, giving it the scientific name *Tanichthys albonubes* - literally Tan's fish from the White Cloud.

The White Cloud Mountain is actually a series of 10 mountain peaks outside the city of Guangzhou in the



province of Guangdong province, China. This is the province to the north of Hong Kong, which figures in the story a few years later. White Cloud Mountain, also called Baiyun Mountain, is still popular today as a nature area and as a tourist attraction famed for its natural beauty. The locals even call it the "lungs of the city", and its tree covered slopes are surrounded today by the suburbs of Guangzhou.

The mountain gets its name from the clouds that form like a ring around the peaks after a rain storm. Unfortunately, pollution and the expansion of the city have taken a toll



Habitat at Wangzi Mountain, Guangdong province, China.



Habitat at Wu Tong Mountain, Shenzhen, Guangdong province, China.



on the streams where the White Cloud was found previously, and over the

Adult pair; male at front.



decades the White Cloud has now become endangered in its natural range around the White Cloud Mountain, although recent reports say that it is still found in less polluted streams in the hills.

Identification

In the late 1930s, just before WWII, another White Cloud was

described in a hobby publication - *Aphyocypris pooni*. The description was not formally accepted, though as usual we hobbyists jumped on it. In 1939 Lin recognized this species in his paper Description of Two New Carps from the New Territories published in the Hong Kong Naturalist. It was reported to come from the New Territories, though a definitive location, more information, and any specimens were lost during the war.

By the late 1950s in his TFH booklet *Danios* (TFH Publications, 1958), Dr. Martin Brittan had also recognized this species and even gave it a common name, the Garnet. Brittan reported that the main differences were that the body was a bit stockier, the caudal peduncle a bit thinner, the edges of the forks of the caudal fin were pointed instead of rounded, the body color was reported to be a "deeper color" than *T. albonubes*, and the main difference - the red and yellow colors in the unpaired fins were reversed, with red being close to the body and bluish white edging the fins in true *T. albonubes* and yellow being close to the body and red filling the fins to the tips in the Garnet.

Brittan reported that the two species did not cross

breed, giving further validity to the idea that they are separate species. Based on coloration, the Meteor Minnow (and the later Long Finned White

Cloud) both have the "pooni" fin color pattern, so the Meteor Minnows and even the Long Finned White Clouds were called "pooni" by hobbyists. But *Aphyocypris pooni* is a valid species - and a completely different fish from any of the White Clouds!

Scientists looking at the fish in the 1960s discounted the notion that the Garnet was *Aphyocypris pooni*, and rightly so. The fish we know today as *A. pooni* doesn't look anything like a white cloud. Did those scientists in the 1960s have the same fish that Lin described in

the 1930s? With China being basically a closed society at the time, it would have been difficult to obtain fresh specimens if the earlier specimens from Lin weren't available or had been lost during the war and the ensuing chaos of the Chinese Civil War and the Communist Revolution. Wouldn't Lin have known the difference if he described both species?

So what is the Garnet? Its description is very different in appearance than the original White Cloud. Why did the short finned version of the Garnet disappear from the hobby? Is it the same fish as the so-called Hong Kong White Cloud? Maybe someone at some point can look at the DNA and clear up the mystery once and



Tanichthys micagemmae



Tanichthys thacbaensis

for all.

Two other species of *Tanichthys*, both from Vietnam far to the south of the range of *T. albonubes*, were described in the early 2000s. *Tanichthys micagemmae*, often called the Vietnamese White Cloud, was described first, and *Tanichthys thacbaensis*, called the Lemon Fin or Topaz White Cloud, was described most recently. Both are smaller than the White Cloud and require warmer water than the White Cloud. They also grow larger unpaired fins as they mature, to the point that the trailing edge of the





Golden variant

Teds Fishroom



Long finned variant

Teds Fishroom

male's dorsal fin can reach the caudal fin!

There is also a beautiful golden variant of *T. albonubes* and for a short time, an albino variant was available. A few hobbyists even developed a long finned gold white cloud independent of the Meteor Minnow, as attempts to cross the Meteor Minnow into the gold form proved difficult, and the offspring of these crosses had low fertility or were even sterile, furthering the idea that they were different species.

And just to make things even more confusing, another White Cloud from the New Territories around the town of Fan Ling with a deep purple coloration on the body has recently appeared in the hobby. This purple variant has proven a challenge to breed unlike the other *Tanichthys* species. There is a large gap in the ranges of the known species, so it is entirely possible that another species or two might lurk in

between. So it appears the story of the White Cloud is not finished.

Care & Spawning



In our aquaria they are undemanding. As long as the water is clean (weekly water changes and a good filter), not too cold or too warm (60 F to 85F), and there is plenty of food, they will do well. Give a small group of six to eight adults a 5 to 10 gallon tank with some floating plants, some plants on or planted in the substrate, and a small filter and they will be in heaven. They will eat small pellets, flakes, small live foods, and small frozen foods. They will even breed without any special attention.

Spawning is fairly straightforward. To get a decent sized spawn, separate the male and female for a week to ten days, then add them to a



2-1/2 gallon tank filled with water from the female's tank and a large clump of Java moss or a couple of spawning mops. Add the female first and let her settle in, and then add the male right before the lights go out in the room. 9 times out of 10, they will spawn at first light. A large female can lay several hundred eggs, but even a small female can lay over 100 eggs. Remove the parents after they have spawned.

No heater or filter is necessary. Give the tank a fifty percent water change after you remove the adults. Add water from the adult's tank. As long as the room temperature is comfortable for you, it will be fine for the young White Clouds. In a couple days the eggs will hatch, and about day five after spawning the fry will be free swimming. At this point they will need microscopic foods.

Any commercial egg layer fry food will do fine - Golden Pearls, Sera Micron, APR, or any of the dozens of other commercial egg layer fry foods. Infusoria will also work fine. If you've used live plants, you can even skip this step as they will find what they need for the first few days living on and around the plants. At about day 10 after spawning, you can start adding live baby brine shrimp to their diet.

When you see that all of the fry are eating the brine shrimp by their large orange or pinkish bellies, you can stop feeding the microfood. At this time you can add a couple of small snails or shrimp to help clean up uneaten food. The fry will have a brilliant greenish stripe along the body that in decades past gave rise to their nickname as the "Poor Man's Neon Tetra". Remember this was at a time when a pair of Neon Tetras would cost almost a week's salary, while the White Cloud, as noted above, was very inexpensive.

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They grow quickly and with enough room, water changes and food, they will reach 1" in about 8 weeks. At this point you can pass them on to others, add them to your shoal, or even set up an outdoor tub for them.

The great thing in my opinion is that the White Cloud is a beautiful fish, whichever variant or species you may have. They are easy to care for, easy to feed, and it is easy to get them to reproduce. In fact, with well fed fish in a well planted tank, it is difficult to get them to stop breeding! If it is a species only tank, you will have plenty of juveniles at almost all times. I often recommend the White Cloud as a first fish for folks to set up their first tank. Every single person that I have done this with has continued to keep fish and has been successful with their hobby. I don't know of any other fish which can say that!

They are fine residents for nano tanks, and a school looks great in a large planted tank as well. They are one of the most popular "bread and butter" fishes in the hobby and you can find them in any shop just about anywhere in the world. I also recommend them to anyone who wants to start breeding egg layers. They are undemanding as to water parameters and will start spawning when they reach sexual maturity provided that you have both a male and a female. They are great confidence builders for beginning breeders and will help a beginning breeder to learn the ropes of raising tiny fish without the challenge of many other egg-laying species.

Finally, they make great fish for a tub water garden. They will live in smaller containers outdoors from late April through October here in St. Louis. They will often do well in a planted tub water garden with no supplemental food, and even breed! They are fantastic for mosquito control in smaller water features as long as they are not in direct sun all day.

Fish that are beautiful, easy to care for, easy to breed and undemanding about their home and water. What more could one ask for in a fish?

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2017 BREEDER'S AWARD PROGRAM - Steve Edie



May

Member	Genus	Species	Common Name	Points	Bonus	CARES	Total
Steve Edie	<i>Julidochromis</i>	<i>transcriptus</i> "Pemba"		10			215
	<i>Limia</i>	<i>perugiae</i>		5			220
Mike Hellweg	<i>Julidochromis</i>	<i>ornatus</i>	Golden Julie	10			6910
Mike Huber	<i>Aulonocara</i>	<i>jacobfreibergi</i> "Ottor Point"		10			1237
	<i>Amatitlania</i>	<i>septemfasciatus</i> @	Blue Eye Cichlid	10		10	1257
	<i>Neochromis</i>	<i>omnicaeruleus</i> "Makobe Is" #		0			1257
Jerry Jost	<i>Corydoras</i>	<i>sp.</i> "C003" *		10	5		2557
Chris Mohrle	<i>Ameba</i>	<i>splendens</i> @	Butterfly Splitfin Goodeid	15		15	180
	<i>Corydoras</i>	<i>paleatus</i>	Longfin Pepper Cory	10			190
	<i>Corydoras</i>	<i>sp.</i> "CW010"	Orange Laser Cory	10			200
	<i>Limia</i>	<i>melanogaster</i>	Black Belly Limia	5			205
	" <i>Xystichromis</i> "	<i>phytophagus</i> #	Xmas Fulu	0			205
Dan Rios	<i>Corydoras</i>	<i>aeneus</i>	Bronze Cory	10			60
	<i>Xenotoca</i>	<i>eiseni</i> @	Redtail Goodeid	15		15	90
Pat Tosie	<i>Labidochromis</i>	<i>flavigulis</i> "Chizulumu Island" *		10	5		5325
	<i>Trichromis</i>	<i>salvini</i> "Grijlua" *		10	5		5340
	<i>Xenotoca</i>	<i>eiseni</i> #@		0		15	5355
	<i>Xiphophorus</i>	<i>continens</i> "Rio Ojo Frio" #		0			5355
Bob Watson	<i>Devario</i>	<i>aequipinnatus</i>	Giant Danio	5			85
	<i>Goodea</i>	<i>gracilis</i> @	Dusky Splitfin	15		15	115
Andy White	<i>Hypancistrus</i>	<i>L236B</i> *		20	5		165
	<i>Loricaria</i>	<i>similima</i> **		15	10		190



2017 BREEDER'S AWARD PROGRAM - continued

June

Member	Genus	Species	Common Name	Points	Bonus	CARES	Total
Mike Hellweg	Gambusia	punctata	Giant Cuban Mosquitofish	5			6915
Mike Huber	Jordanella	floridae	Florida Flag Fish	10			1267
	Nimbochromis	livingstonii		15			1282
	Tropheus	sp. "Red Chilanga"		15			1297
	Xiphophorus	sp. "Domestic Swordtail" ^	Koi Swordtail	0	1		1298
	"Xystichromis"	sp. "Kyoga Flameback" @		10		10	1318
Debbie Sultan	Buccochromis	nototaenia	Stripeback Hap	15			915
& Tom Corradini	Lepidolamprologus	meeli "Kipili"		10			925
Pat Tosie	Chindongo	elongatus "Chailosi" *		10	5		5370
	Chindongo	demasoni @		10		10	5390

BAP Key:

* = First MASI species spawn (5 point bonus)

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

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

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

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

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

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

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

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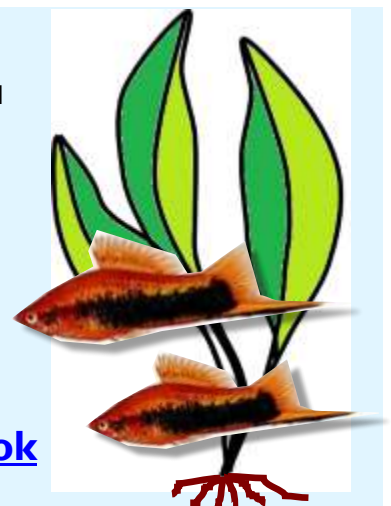
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HORTICULTURE AWARD PROGRAM - Mike Hellweg

May & June 2017



Member	Genus & Species	Common Name	Type	Points
Chris Mohrle	460 points			
	<i>Vallisneria gigantea</i>	Jungle Val	V	5
Chuck Bremer	675 points			
	<i>Cryptocoryne aponogetafolia</i>		IB	20
	<i>Micranthemum nuttallii</i>	Baby's Tears	V	15
Mike Hellweg	3700 points			
	<i>Anubias barteri nana</i> "Narrow Leaf"	Narrow Leaf Dwarf Anubias	V	15
	<i>Anubias sp. barteri nana x gigantea</i>	Nangi Anubias	V	15*
	<i>Anubias sp. barteri nana x gigantea</i>	Nangi Anubias	IB	20

HAP Key:

Reproduction Key: V = Vegetative, OB = Outdoor Bloom, IB = Indoor Bloom, S = Seedling;

* MASI First!

Horticultural Award Program Blooms submitted in 2017



Anubias sp. barteri nana x gigantea



C. aponogetafolia
Lower portion of bloom. 4" above crown, 12" below surface



C. aponogetafolia's
Jack in the Pulpit bloom opens above the surface

Tubbin' It this year? Get some photos of those blooms before they're gone!! Help beautify the September issue of the Darter! Tub space and enjoyment well invested!!



CLUB HOPPING - Steve Edie

Jul 22 - Urbana, IL: Champaign Area Fish Exchange - Summer Auction

Aug 6 - St Louis: MASI - Summer Auction

Aug 12 - Kansas City: Heart of America Aquarium Society - Swap Meet

Sept 17 - Indianapolis, IN: Circle City Aquarium Club - Auction

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

Oct 1 - St Louis: MASI - Swap Meet

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

Oct 14 - Rogers, AR: NWAAS - Auction

Oct 14 - Kansas City: Heart of America Aquarium Society - Auction *(Date Change)*

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

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

Oct 29 - Alsip, IL: Greenwater Aquarist Society - Auction

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

Nov 3-5 - Chicago: Aquatic Experience

Nov 12 - Alsip, IL: Greenwater Aquarist Society - Swap

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

Nov 19 - St Louis: MASI - Fall Auction

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



Nearby Clubs linked to their logo



Other links are on the MASI

[Linkpage.](#)

Convention LogosHotlinked!



MASI 2018 - Save the Dates

Feb 11 - St Louis: MASI - Winter Auction

Apr 22 - St Louis: MASI - Spring Auction

Aug 12 - St Louis: MASI - Summer Auction

Oct 7 - St Louis: MASI - SWAP

Nov 11 - St Louis: MASI - Fall Auction



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!

Asian Steamed Tilapia

Ingredients:

- 8 - 4-to-5-ounce skinless Tilapia fillets
- Kosher salt and freshly ground pepper
- 5 - scallions, cut into 2-inch pieces
- 1 - 2-inch piece ginger, peeled and cut into matchsticks
- 2 - tablespoons low-sodium soy sauce
- 3 - tablespoons peanut oil
- 3 - cloves garlic, minced
- 1 - jalapeno pepper (red or green), seeded and cut into matchsticks
- 1/2 - teaspoon sugar
- 1 - red bell pepper, cut into matchsticks
- Cooked white rice, for serving



Directions:

Rinse the tilapia under cold water and pat dry. Sprinkle with 1 teaspoon salt and a few grinds of pepper. Arrange 4 fillets in a single layer in a glass or enamel pie plate. Top with half each of the scallions and ginger, then lay the remaining 4 fillets on top to make 4 sandwiches. Drizzle with 1 tablespoon soy sauce and refrigerate until ready to cook, or up to 30 minutes.

Remove the tilapia from the refrigerator. Fill a wok or large Dutch oven with 2 to 3 inches of water; bring to a boil. Put a large steamer in the wok (the water should not touch the bottom of the steamer). Set the pie plate in the steamer, cover and steam until the fish is cooked through, 15 to 20 minutes. Transfer the fish to a plate and drizzle with any collected juices.

EAT MORE



FISH

Heat the peanut oil in a small skillet over medium-high heat. Add the remaining ginger, the garlic, jalapeno, sugar and 1/2 teaspoon salt and stir-fry 30 seconds. Add the remaining 1 tablespoon soy sauce and remove from the heat. Slice the remaining scallions into matchsticks and scatter over the tilapia along with the bell pepper. Pour the ginger mixture on top. Serve with rice.

Total Time: 45 Minutes. Makes 4 servings

Nutrition Facts	
Serving Size 1 ounce (28g)	
Amount Per Serving	
Calories 36	Calories from Fat 7
% Daily Value*	
Total Fat 1g	1%
Saturated Fat 0g	1%
Trans Fat	
Cholesterol 16mg	5%
Sodium 16mg	1%
Total Carbohydrate 0g	0%
Dietary Fiber 0g	0%
Sugars 0g	
Protein 7g	
Vitamin A 0%	Vitamin C 0%
Calcium 0%	Iron 1%

*Percent Daily Values are based on a 2,000 calorie diet. Your daily values may be higher or lower depending on your calorie needs.

NutritionData.com

**Fish, tilapia, cooked, dry heat
Nutrition Facts & Calories**



MEMBER CLASSIFIEDS

Buy/Sell	Member	Item Description	Bid/Asked	Contact
Sell	Charles Harrison	Thiosulfate crystals (Chlorine Remover) - pound	\$4.00	(314) 849-9761
		OTO double strength Chlorine/Chloramine test kits - 4 ounce	\$12.50	charles@inkmkr.com
		Flubendazole, 10% powder 25 grams	\$20.00	
		Lamisole HCl Powder - 5 grams treats 100 gallons	\$10.00	
		Methylene Blue 5% solution (4 ounces)	\$12.75	
		Acriflavine Concentrate (4%) solution, 2 ounces	\$12.70	
		Bromthymol Blue pH test solution, 4 ounces	\$7.00	
Sell	Charles Hoppe	Several 10 and 15 gallon tanks, including wooden rack. Makes a nice small fishroom. Extras, contact me if interested.		(314) 846-4648 charliehoppe@me.com
Sell	Steve Edie	55 gal on wood shelf-type stand. Top and light. \$55 donation to MASI Challenge/Stuart Grant Fund. Pick up only. I no longer have a truck.	\$55 SGF	sredie@charter.net
Buy	Mike Hellweg	Small Styro shipping boxes - 12 x 12 x 12 or a little bit smaller. If your company uses them and throws them away, save them! Bring to the meeting or I'll come pick them up	Free	(636) 240-2443

NEW

Got swimming in those Tanks?

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

SHOP HOPPING - July, 2017

Special Events and Deals!

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

Happy Fish Shopping!
The Missouri Aquarium Society

What	Where
Current Specials	petco
July Specials	PetsWay
Facebook	Pet Connection
Monthly Specials	Sailfin Pet Shop
Facebook/Specials	Aqua World
Monthly Specials	Tropical World Pets
Weekly Specials	Corals & More
Fish List	Malawi Aquatics



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Monthly Bowl Show Entry Form

Entrant Name _____

Month/Year _____ Monthly Class _____

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

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

July:
Livebearers

August:
Anabantoids:
Bettas,
Gouramis,
Ctenopomas,
etc.



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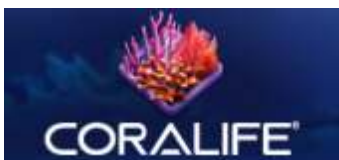
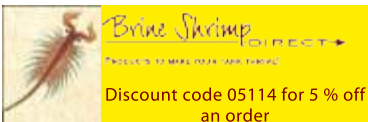
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