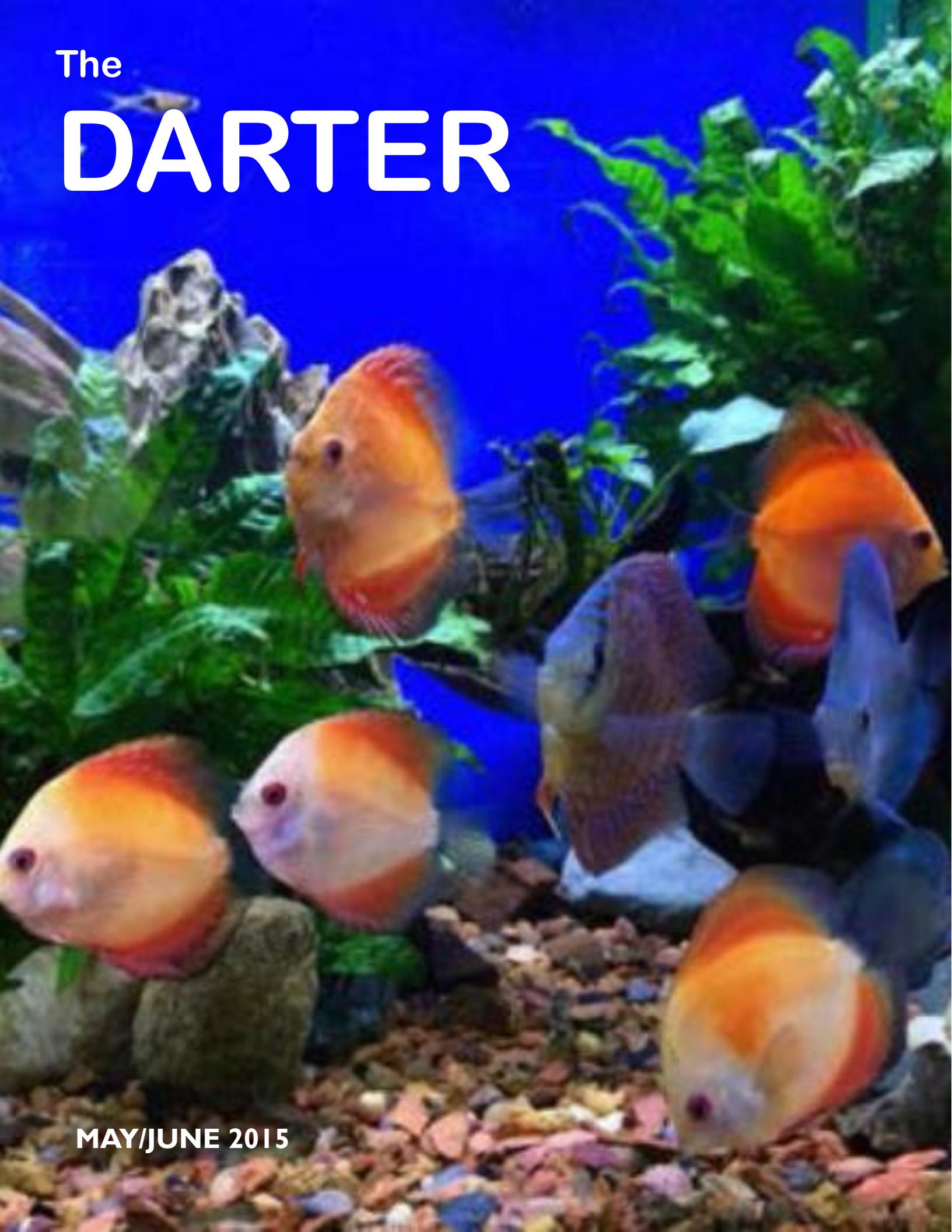


The

DARTER



MAY/JUNE 2015

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THE DARTER (ISSN 0192-78333) is published six times a year by the Missouri Aquarium Society, Inc., 1813 Locks Mill Drive, Fenton, MO 63026-2662. Periodicals Postage Rates paid at Fenton, MO. This publication is free to members of the Missouri Aquarium Society, Inc. and other qualified requesters as determined by the publisher. Subscription requests can be sent to: Missouri Aquarium Society, Inc., 1813 Locks Mill Drive, Fenton, MO 63026-2662.

POSTMASTER: Please send all

address changes to Missouri Aquarium Society, Inc., P.O. Box 1682 Maryland Heights, MO 63043-1682. Please allow 6-8 weeks for change of address. Include your old address as well as new - enclosing, if possible, an address label from a recent issue.

Opinions expressed by the contributors are their own and do not necessarily reflect the opinions of the Missouri Aquarium Society, Incorporated. The editor reserves the right to edit any article for length, clarity, or content.

EXCHANGE POLICY

The Missouri Aquarium Society will exchange THE DARTER with other aquarium societies. Failure to receive three consecutive issues of a society's publication will be considered as a termination of our exchange, unless advised to the contrary.

Send exchange publications to: MASI Exchange, P.O. Box 1682 Maryland Heights, MO 63043-1682

Send electronic versions to edi-

tor@missouriaquariumsociety.com

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Membership

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

MASI STUFF!

An expanded line of MASI Logo merchandise is now available from Café Press. Pick from T-shirts, jerseys, caps, tote bags, coffee cups, and more. Go to www.cafepress.com/MissouriAquariumSociety.



FROM THE PRESIDENT

Pat Tosie

"Show-Me the Fish 2015" is now just a fond memory, and unfortunately, I missed all the speakers because I had a busy weekend with my son's wedding! I did make the auction and heard from a lot of people who enjoyed this years show. Thank you to Kathy, Holly and all the workers and helpers who made it successful. I would also like to thank the speakers who gave up their weekend to give us some wonderful presentations.

Congratulations to Holly Paoni Wise for earning Member of the Year, she has worked very hard and diligently to promote the clubs activities and chair the swap meet, increasing the number of vendors and attendees.

Great job Holly, Thank you for your dedication and hard work!

The MASi Challenge (Amazon Research Center for Ornamental Fishes) is doing well and I hope it continues to be supported by everyone. Dr. Mazeroll will be sending some fish to us later this year for us to auction off to raise some additional money for this worthy cause and I will be giving a power point presentation at one of the upcoming meetings to show you what it is all about.

Election time is approaching and we are always looking for members to get involved. Please think about running for a position on council or an elected office. To run for council or an elected

position, all you need to do is talk to one of the current elected officials or council members and let them know of your interest, we are always looking for new and fresh ideas. If that is not for you, you may want to get involved in one of the many different club activities that keep us going strong. What can you do to be more involved?

Each month we have a Monthly Bowl Show. Rose Sonderman is the chairperson.

- May is Characins: Tetras, Pencifish, Piranhas, Pacu, Silver Dollars, etc.
- June is Catfish,
- July is Livebearers
- August is Anabantoids: Bet-



tas, Gouramis, Ctenopomas, etc.

- September is Rainbowfish
- October is SuperBowl
- November is Aquatic Critters: Aquatic Invertebrates, totally aquatic amphibians.

See our website for rules. I encourage each and every one of you to enter 3 fish a year! That is only 1 fish a quarter and I am pretty sure there are at least 3 classes for which you have a fish you could enter. Bring your favorites in and earn some bragging rights!

Keep looking below water....

FROM THE EDITOR

Mark England



First off, a mea culpa—Latin for “My bad, bro!” In the last issue’s HAP report I included a graphic of a green thumb that covered up Mike Huber’s and Mike Hellweg’s names. It looked like Chuck Bremer propagated about a hundred or so species. Not quite—Chuck’s good, but not that good. A corrected report is included in this issue.

Next up is a new column called “Back To Basics” that is oriented to less experienced hobbyists. It’s sometimes a little intimidating when you realize how many experts we have in our club, but not everyone, including myself, is at that level.

I still get the most pleasure from the “bread and butter” fish I enjoyed when I first got into the hobby. I like pretty little tropical fish and you’ll probably never see a fish in my tank (singular) that a dozen other members haven’t kept and bred.

“Back To Basics” is aimed at paying it forward with a helping

hand for those who are not yet aquarium old timers.

“The Darter” participates in a newsletter exchange with many other aquarium clubs. Just like “The Darter” does, other clubs cover a variety of club news and events that are of interest to their members only. Also, like MASi, others have breeding reports, plant propagation reports, and topics of general interest that you may enjoy. Most issues of our newsletter include one or more reprinted articles from other aquarium clubs. I choose stories that I think will

interest our members.

We receive 19 newsletters electronically. Some are monthly, some are quarterly, and some are irregular. Most are in pdf format or can be read from the club’s website.

If you would like to receive the exchange newsletters, send an email to Gary Lange at gwlange@sbcglobal.net. Gary has volunteered to forward the newsletters to anyone who is interested. You’ll get all of them as they come in. It’s all or nothing and electronic copies only. Happy reading!

MAY 21—DAVID WHITCRAFT “ADVENTURES IN URUGUAY, A FIRST TIMERS PERSPECTIVE ON COLLECTING”

David Whitcraft has been keeping fish for a brief period, just less than 10 years. He's been president of the Heart of America Aquarium Society (HAAS) for the past 3 years and has bred 25 species of fish. Currently his fish room

has 25 tanks running, mostly stocked with fish from his Uruguay expedition in 2013. Professionally he is an IT Manager for one of the largest health care IT providers in America, a career 18 years in the making.

Gary Lange



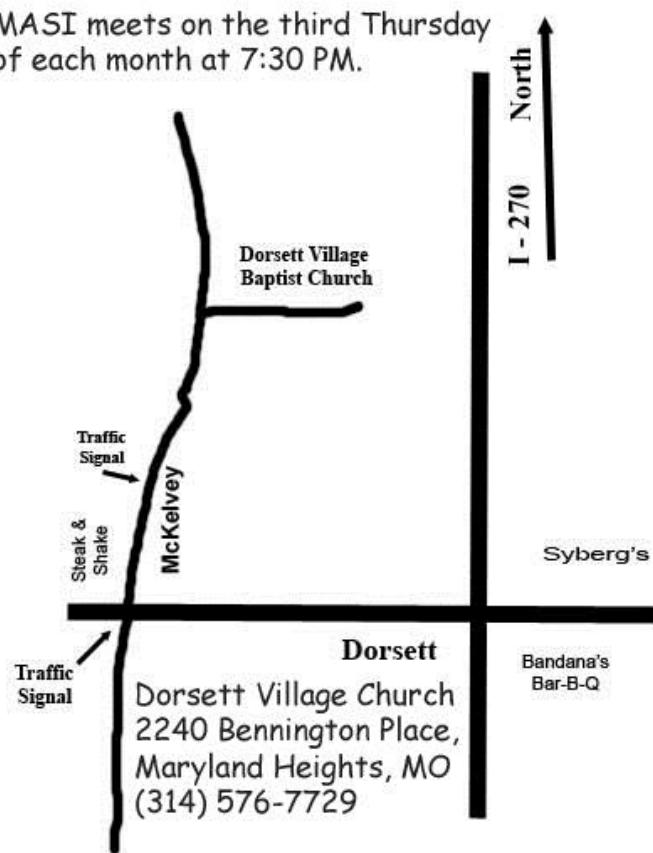
JUNE 18 — LARRY JINKS “ADVENTURES WITH NEW WORLD CICHLIDS”

This talk covers over 60 species of new world cichlids that Larry has bred and received BAP credit. These fish range from dwarfs to "tank busters".

Larry Jinks joined North Jersey Aquarium Society and the organized hobby in 1994. He raised and bred tropical fish as a youth, but stopped for a

track and field career in college. After earning a bachelor's degree in biology at Rutgers College and a master's in biology from Montclair State, he embarked on a 37 year career as a high school biology teacher and track coach. After retiring, Larry and his wife, Joanne, followed their children and grandchildren south and built a

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



new home (with a new fish room) in Wake Forest, NC.

Larry has remained active in the BAP programs at North Jersey AS, Jersey Shore AS, Brooklyn AS, Raleigh AS, Atlanta Area AS, and the American Livebearer Association and is currently an officer in the Raleigh Aquarium Society. He has received BAP credit for over 350 species of fish and has been to fish shows in eight different states, winning Best of Show in four states. Now a

fulltime grandpa, Larry still enjoys attending fish conventions, working in his new fish room and trading fish with other hobbyists.



Electronic Distribution Now Available In Full Color

For those who prefer, the Darter is now available electronically, instead of the paper distribution. To change from paper to electronic distribution, email me at editor@missouriaquariumsociety.com. You will get your Darter sooner and the club will save printing and postage. And, as in 2014, you will save \$5 on your membership.



2015 Show Winners!



CLASS 1 AQUASCAPING

sponsored by Ron Johnston

1. Chuck Bremer nano tank
2. Kathy Daly angel tank
3. Chuck Bremer ancistrus tank

CLASS 2 SCHOOL/FAMILY/BIOTOP

sponsored by Bob and Lora Watson

1. Jim Mueller High-Fin Albino Corydoras
2. Jim Miller Angel Family (that was raising fry and laying new eggs!)
3. Mike Slater Angel Family

CLASS 3 NOVELTY/THEME

sponsored by Robby Simmons

1. Kitty Mueller Party Theme with betta
2. Chuck Bremer nano tank

CLASS 4 ALL OTHER FISH

sponsored by Rick & Alice Tinklenberg

1. Jim Miller Zebra Eel
2. Chuck Bremer Rosy Loach
3. Chuck Bremer 3 Line Pencilfish

CLASS 5 OLD WORLD CICHLID

sponsored by Bruce Mayhew

1. Chuck Bremer Neolamprologus multifasciatus
2. Chuck Bremer Tropheus Duboisi Maswa
3. Chuck Bremer Cyprichromis Leptosoma

CLASS 6 NEW WORLD CICHLID

sponsored by Debbie Sultan and Tom Corradini

1. Jim Miller Neetroplus nemotopus
2. Jim Miller Herichthys carpintia
3. Mike Slater Gold Marble Veil Angel

CLASS 7 KILLIFISH/RAINBOWFISH

sponsored by: SLAKA (St. Louis chapter American Killifish Association)

1. Jack Heller Epiplatys lamottei
2. Jack Heller Simpsonichthys boiteni
3. TIE Jack Heller Fundulopanchax spoorenbergi AND Jack Heller Fundulopanchax gardneri innidere

CLASS 8 LIVEBEARERS WILD

sponsored by Pat Tosie



	BEST FISH IN SHOW Sponsors Rick & Alice Tinklenberg Jim Mueller Corydoras family
	JUDGE'S AWARD Sponsor Shawn Bellman Jim Miller Angelfish family with eggs
	BEST JUNIOR ENTRY Sponsors Steve & Kathy Deutsch River Grush betta
	REET THOMAS LIVEBEARER Sponsor National Laser & Inkjet Cartridge Service Chuck Bremer Hi-Fin Platy
	RALPH WILHELM CATFISH Sponsor Steve Edie Jim Mueller Corydoras paleatus
	BEST CICHLID Sponsored by the Amsden's in honor of Jim Thale Chuck Bremer Neolamprologus multifasciatus

1. Kurt Zahringer Characodon audax "El Toboso"
2. Chuck Bremer Ameca splendens (M)
3. Jim Mueller Bumble Bee Platy

CLASS 9 LIVEBEARERS FANCY

sponsored by Derek Walker

1. Chuck Bremer Xiphophorus Hi-Fin Tux Plat
2. Chuck Bremer Xiphophorus helleri Hi-fin double tail

3. Connie Bremer Poecilia reticulata-platinum albino male
4. Connie Bremer Poecilia reticulata-solid black male

CLASS 11 CHARACINS

sponsored by Chuck Bremer

1. Kathy Daly Buenos Aires Tetra
2. Kathy Daly Lemon Tetra
3. Chuck Bremer group of Cardinal Tetras

CLASS 12 ANABANTOIDS

sponsored by Jim Miller

1. Jim Miller Belontia signata
2. Chuck Bremer Betta oscellata
3. Kurt Zahringer Betta patoti

CLASS 13 ALL BETTAS

sponsored by Jerry Montgomery

1. Kitty Mueller
2. Mike Slater
3. Daniell Grush

CLASS 13 MASI CONTEST BETTAS

sponsored by Jim & Sue Amsden

1. Kitty Mueller
2. Daniell Grush
3. Robby Simmons

CLASS 14 CATFISH-CORYDORAS

sponsored by NBM Aquatics

1. Jim Mueller Corydoras paleatus (F)
2. Jim Mueller Corydoras paleatus (F)
3. Chuck Bremer Corydoras pygmaeus

CLASS 15 CATFISH-ALL OTHER

sponsored by NBM Aquatics

1. Jim Miller Cochliodon species
2. Jim Miller Synodontis eupterus
3. Chuck Bremer Ancistrus (M)

CLASS 16 PHOTO

sponsored by Kathy and Marc Daly

1. Jerry Montgomery-ryukin goldfish
2. Jerry Montgomery
3. Jerry Montgomery

CLASS 17 ART AND CRAFT

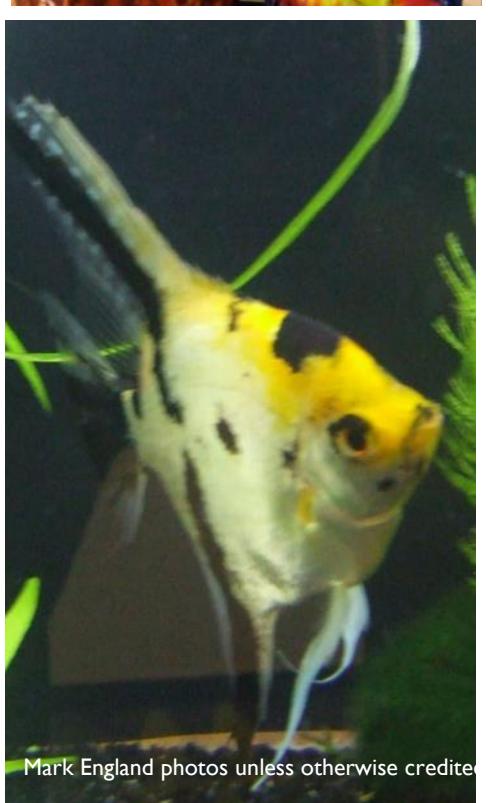
sponsored by Kathy and Marc Daly

1. Kitty Mueller angelfish drawing
2. Kitty Mueller catfish painting

Kevin Wise photo



Laura Roberson, Raffle Winner—125 gal. tank



Mark England photos unless otherwise credited

2015 SHOW-ME FISH SHOW WRAP UP

By Kathy Deutsch, show co-chair

First, I could not have done this without Holly, the co-chair, who did an amazing job. And I want to thank Gary Lange for dealing with the AV and the air system (he fixed it). It was a thankless set of tasks he undertook. Finally, Mike Hellweg answered the phone every time I called, emailed me back every time no matter how dumb the question, and helped with ideas and advice.

What a show! My list of thank you's is elsewhere in this publication. But I wanted to thank everyone in MASi who made the show great. You brought fish to show, you came to see the speakers, you hung out and chatted with non-members who came to see the event. If you smiled and had positive thoughts that this would be a good show-thank you! This event could not have been a success without the support from every one in the club. I am so proud to be a member.

I only had compliments from people all weekend.

Couple points:

I do feel bad that we could not get more exposure from the local TV or paper. I now know the key -a monthly press release sent to all the local outlets. You can bet I will be doing that. As for the scouts and 4-H, I could use someone's knowledge. I kept hitting dead ends. If YOU know a scout leader or a way to let the scouts know we have shows, please let me know.

Until I am asked by the President, I am not next year's show chair.



It is an assigned position.

Finally, if you want a show next year, please consider what you might do to help. If you have an idea, I am sure the show chair will want to hear it.

And I leave you all with this idea of my own: would you bring a fish to show if the tank was set up at the show site, and ready to go with water? All you would bring is the fish, filtration/heat, and plants if you wanted.

THANK YOUS!

Volunteers

Show co-chair Holly Paoni-Wise and Kevin Wise

Show co-chair Kathy Deutsch, Steve Deutsch, James Pilarcik, Neko and Jerry

THANK YOU! The turn out of helpers was heartwarming!

Mike Hellweg, Deb and Tom, Ed Millinger, Scott Bush for hospitality and other work, Derek Walker, Chuck and Connie Bremer, Bob and Lora Watson, Steve Edie, Marlon Felman, Daniell, Charles Harrison, Leroy McCreary, Matt Schauer, and so many others....I know I am forgetting someone!

Thank you Gary Lange for fixing the air system and doing the hard work of the AV all weekend.

Speakers

Matt Schauer for stepping up and doing a great talk at the last minute

Barbie Fiorentino for dealing with flight delays to give us interesting fish talks

Rick Borstein for doing a long drive to speak to us on topics we don't often hear.

Judges

Mike Hellweg (Senior judge), Ed Millinger, Jim Amsden

Thanks to the Crown Plaza event staff team: Leeann and Danielle

Thanks to Mark Theby and Dave Rush for hauling the screen and the books, And Ryan Fitzgerald for getting the barrels over to the venue. Plus Wayne Miller for storing the show stuff for a year and caring for it.

Donors

Support your local fish shop! Knowledge and advice!

TROPICAL WORLD PETS

for their support and raffle tank
8444 Watson Rd, Webster Groves
sales@twpstl.com

Phone: (314) 849-4020

PETSWAY donation

10040 Gravois Rd, St Louis, MO
(314) 833-5116

The Tee Shirt Guy (thanks for all the hard work!)

(314) 890-8139

info@goodshirtscheap.com

Vendors

HCA Aquatics

NBM Aquatics

Exotic Aquatics

From the Ashes Aquatics

Rich's Fish Room

SHOW REPORT

By Holly Paoni-Wise, co-chair

I just want to thank everyone that pitched in to help with the show. You all know who you are, and there are so many, I don't want to accidentally forget any one so thank you each and every one that came, entered a fish, sold a ticket, worked a table, helped with set up, tear down, welcomed a guest, held a door, or many of the 'lil jobs that contribute to an easy and smooth weekend. You are appreciated!

The Show has came a long way the last 3 years. Small shows have the great benefit of one on one time with members we don't get to see as often as we'd like, or getting to spend more time getting to know one of the speakers better, or have them answer your questions.

Overall I believe things went smoothly and those that participated had a good time!

Auction Chairman's Message

By Mike Hellweg

A great spring weekend ended with a great auction. Thank you to all who helped make this another successful auction.

We can take a little breather as our next one isn't until our Annual Summer Auction on Aug. 9.

Don't forget to thank Chuck and Mark down at Tropical World Pets for helping us out with a 125 gallon set up again for the Show auction raffle. It's rare to find a shop that's able to be this generous in today's economy, so be sure to not only thank them, but support them! I hope we see you all in August.

2015 ELECTIONS-WHAT IS THE BIG DEAL? OR IF YOU LIKE THE CLUB, HELP GROW THE CLUB

By Kathy Deutsch

If you have been a MASi member for any length of time, you have heard, every year, about elections. And you may have wondered why this is a big deal. The club runs well, we have good programs, the auctions are great, so why are the elections a big deal?

The Missouri Aquarium Society is one of the biggest and most active clubs in this country. Think about that when you look around the room at the next general meeting. YOU are one of the reasons why the club is so big. Every member adds to the number of people in the club. If you are buying at a monthly auction, greeting a guest, or chatting with someone at a pet shop about MASi, then YOU are the reason we are active and growing.

Part of growth and sustainability is continuity. At home, if we don't discuss chores to be done, then nothing gets done because no one knew what to do. At MASi, if we don't explain the way the club works, if we don't follow through on plans, then no one knows and we cannot continue the club's growth.

In short, if we continue to have everyone doing the same stuff, no one will learn it and carry it forward. The club will die from lack of continuity. If someone is unhappy with the club being on Executive Council is the best way to change it.

And while we all contribute,

someone needs to be in charge. Someone needs to decide the direction of the club and steer it that way. And that is the job of the Executive Council. Council meets once a month, discusses club business, and decides on new things to do. Six members of EC are appointed positions and 6 are voted in by MASi members. If you want to help grow and sustain MASi, this is how you

grams for the monthly meeting. VP is in charge of the AV equipment-obligated to bring it to meetings or events as needed. In addition, gathers a slate of candidates for elections.

- Secretary: takes accurate notes at monthly and EC meetings, creates a report of those notes and presents it



do it. OBLIGATION: each member hosts a monthly meeting. It can be at their home, or it can be at a VFW, or any meeting place. Snacks and drinks are usually provided by the host. Not mandatory.

Other club elected positions:

- President: officiates, attends most events, helps out when needed. Manages and decides the appointed positions in the club. Stays in contact with MASi members. Basically an overseer.
- Vice President: is in charge in absence of President. Is also the program chairman, who finds speakers or pro-

at meetings. Also provides the reports to the historian.

- Treasurer: the money person. Handles club monies, keeps track of all monies, does a report of the club's funds every month.

NOTE: this is a capsule description of each job. Please refer to our handbook (on the website) for complete info.

NOMINATIONS END at beginning of MAY general meeting. Tell VP Gary Lange and President Pat Tosie if you want to run for an elected position.

ELECTIONS at JUNE general meeting.

FISH RESCUE SQUAD IS GO!

By Kathy Deutsch

The name sounds like a TV cartoon, but our mission is serious. Formed this year by volunteers, we are the fish rescue and rehoming group.

Every year I get notifications from people who have fish and aquatic animals they cannot keep. Perhaps the fish got too big, or the tank must be taken down, or a fish was inherited from someone. I finally decided to start a group within the club strictly for fish rescue. This group has agreed to rescue fish/aquatic animals, and find them new homes. This is done with no money exchanging hands, and the volunteers use their own vehicles and items.

When I get a notification from someone with a fish in need, I email them to understand the situation. Then I post to the other fish rescuers. The first one to see the post and respond to it does the rescue.

We have only had successes so far. And to insure continued success, I will have the person who gives up the fish sign off on the rescue. Then we will have no misunderstandings. Once the fish is relinquished, it becomes the property of the rescuer and the new owner.

If you know someone who needs a fish rehoming or rescue, feel free to click the email link on our website for "fishrescue@missouriaquariumsociety.com". Fish Rescue Squad will do the rest!

CLUB HOPPING

By Steve Edie

Check with the individual clubs for more details.

May 22-24	Chicago	Greater Chicago Cichlid Association	Cichlid Classic	www.gcca.net
May 22-24	Detroit	American Killifish Association	Annual Convention	aka.org
Jun 4-7	Broken Bow, OK	North American Native Fish Association	Annual Convention	www.nanfa.org
Jun 25-27	Indianapolis	Midwest Betta Club	Convention	www.bettafish.com
Jul 11	Urbana, IL	Champaign Area Fish Exchange	Summer Auction	www.champaignfish.com
Jul 30-Aug 2	Springfield, MA	American Cichlid Association	Annual Convention	www.acaconvention2015.com
Aug 9	St Louis	MASI	Summer Auction	www.missouriaquariumsociety.com
Sep 27	St. Louis	MASI	Swap Meet	www.missouriaquariumsociety.com
Oct 24	Peoria, IL	Tri-County Tropical Fish Society	Fall Auction	peoriafishclub.com
Nov 1	St Louis	MASI	Fall Auction	www.missouriaquariumsociety.com
Nov 6-8	Chicago	Aquatic Experience		aquaticexperience.org
Nov 15	Indianapolis	Circle City Aquarium Club	Auction	www.circlecityaqclub.org
Nov 20-22	Cleveland	Ohio Cichlid Association	Extravaganza	www.ohiocichlid.com

JUNE 27 & 28 POND-O-RAMA

The St. Louis Water Gardening Society is organizing its 2015 Pond-O-Rama, a tour of members' ponds and gardens that is open to the public. Our 15th annual tour, which will be held June 27 and 28 has come to be a highlight of the spring and summer St. Louis garden tours. SLWGS members open their private spaces to the public to share their passion, provide education about ponds, plants, and fish, and raise funds for the Society's projects.

Tickets will be available at retail locations in May. For details, see www.saintlouiswatergardeningociety.org/pondorama.htm

SEPT 27 SWAP MEET

SWAP REGISTRATION IS OPEN.... Vendors tables are \$25 each. See Holly Paoni-Wise at a meeting, send an email to hcaquatics@yahoo.com, or send a Facebook message. About 20 tables are already taken. The rules have minor changes this year, so please take a look. Tables sold out by July of last year, and that's right around the corner! Don't miss your spot! Rules are posted on the MASI forum - http://www.missouriaquariumsociety.com/FishHeads_Forum/viewtopic.php?f=5&t=1602

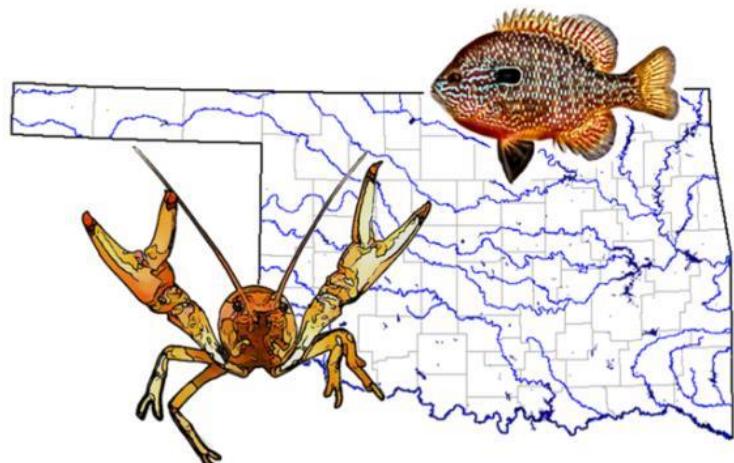


North American Native Fishes Association

2015 NANFA Convention
Broken Bow, Oklahoma
June 4 - 7, 2015

www.nanfa.org

The NANFA 2015 Convention will be held in far southeast OK where the Ouachita Mountains meet the gulf coastal plain. This area holds the states most diverse fish assemblage and both upland and lowland species can be collected within a short drive of each other. A few of the species of interest likely to be encountered include orangethroat, orangebelly, slough, cypress, dusky, channel, harlequin and creole darters, western starhead and golden top minnows, banded pygmy and bantam sunfish, flier, and redfin pickerel.



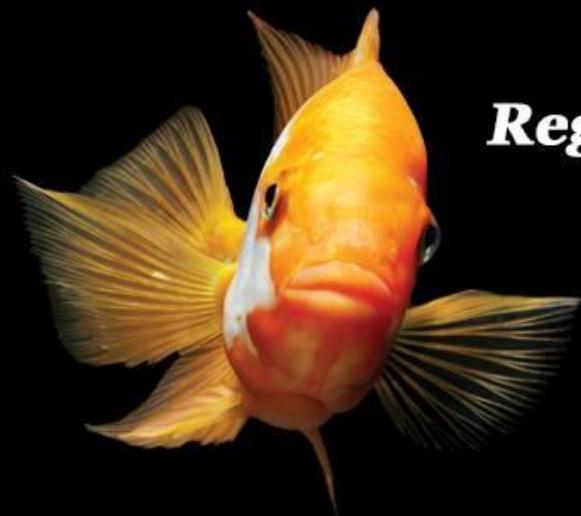
American Cichlid Association Convention 2015

July 30th - Aug. 2nd

Sheraton Hotel, Springfield MA

www.acaconvention2015.com

**Register
Now!**



THE MIDWEST'S PREMIER CATFISH CONVENTION

OCTOBER 16, 17 & 18, 2015

Howard Johnson Madison

3841 E. Washington Avenue
Madison, WI 53704

608-244-2481 <http://catfish-cataclysm.com/>

From The Fish Room by Ed Millinger

I have had a great time writing *From The Fish Room* for quite a time now, but this will be my last one. You aren't quite in the clear though—I will still write articles once in awhile. I already have one for the Nov./Dec. issue. It's amazing how busy you can get in retirement. I'd like to thank the two editors who have accepted my writing over the past few years, Steve Deutsch and Mark England. We have been blessed with some terrific editors including Pat Tosie and Jim Mueller.

Jim and Kitty Mueller were the first people I met at MASi. Before social media and the internet, I saw an ad in the Post Dispatch under "Pets", advertising an aquarium show at the Stratford in Fenton, Mo. Jim and Kitty greeted me, handed me a business card, and invited me to

the meetings then being held in Brentwood on the second Wednesday of the month. This just goes to show how important it is to greet new prospective members. Think back to times you were in a strange environment and were welcomed immediately. It makes a big impression on people. So don't be shy the next time you see a new face at our meeting or auction, walk up to them and introduce yourself.

I was surprised to learn from Gary McIlvane that his dad brought him to a MASi meeting when he was eight years old and he said I was the first one to greet him. Hearing this made me feel good and old all at the same time. I seem to remember while on council we debated the value of the ad in the Post because it was not cheap. Now of course

Holly (our MASi member of the year, as announced at the show banquet. Congratulations Holly.) and social media take care of reaching other fish folks.

A large tip of the MASi cap to both Holly and Kathy for putting on such a fun show weekend. (Their spouses also deserve a lot of credit, thanks Steve and Kevin). Due to travel problems they had to juggle some talks but it all worked out fine.

Rick Borstein had just started his talk when his wife called, he asked if he could call her back and then said to her "Say hi to everybody" and held up the phone. Of course those of us in attendance just had to shout in unison "Hi everybody".

My favorite entries were the photography of Jerry Montgom-



ery from Champaign, Illinois and our own Jim Mueller's catfish family.

I think we consider snails to be slow but I am amazed at how fast Ramshorn snails can sniff out a pellet. I drop them in one tank for my royal farlowellas and when I return not much later the catfish are trying to barge in on the snails which are smothering the pellets.

Tanks for reading and good luck with your fish.

Points Update by Ed Millinger

Here is an up to date listing of points earned by members. This includes the annual show. To understand how points are earned go to our web page and click on WHO WE ARE go down to just below number 9 where the address is and click on download for the handbook. Anytime you help the club just let me know, not everything is written down, for instance if you host a second speaker talk or attend a show committee meeting. I would be glad to give you credit. These names might not be in perfect alphabetical order and I may have had trouble reading your name on the sign in sheets, so I apologize in advance for any mis-spellings. You must have earned at least three points by now to make the list.

Name	Service Show	Name	Service Show	Name	Service Show	Name	Service Show	
Larry Allbright	30	River Grush	3	Leroy McCreary	21	Rose Sonderman	11	
Jim Amsden	5	Sue Harrison	3	Tony McMillan	20	Debbie Sultan	41	
Shawn Bellman	3	Charles Harrison	24	Jim Miller	3	Mark Theby	40	
Klaus Bertich	3	Jack Heller	4	Ed Millinger	52	Pat Tosie	46	
Chuck Bremer	27	178	Angela Hellweg	3	Chris Mohrle	8	Jim Ulett	3
Connie Bremer	11	5	Mike Hellweg	86	Kitty Mueller	3	John Van Asch	27
Bob Buckles	4		Mike Huber	18	Jim Mueller	3	Derek Walker	17
Scot Bush	12		Ron Huck	30	Dwayne Peters	3	Harold Walker	5
Tom Corradini	14		Ralph Hueneburg	4	Todd Powers	6	Lora Watson	41
Kathy Daly	15	35	Ron Johnston	4	Dan Rios	3	Bob Watson	40
Kathy Deutsch	43		Carl Kling	4	Vikthor Rosa	14	Holly Wise	62
Steve Deutsch	41		Amber Koch	3	Dave Rush	32	Kevin Wise	47
Steve Edie	31		Cory Koch	9	Nick Scarlatis	9	Norb Wright	3
Mark England	28		Gary Lange	34	Randy Shell	15	Kurt Zahringer	13
Marlon Felman	62		Dan Ludden	4	Robby Simmons	32		15
Danielle Grush	37	15	Bruce "Books"	4	Mike Slater	14		

Back To Basics by Mark England

Top 5 Tips For A Successful Aquarium

#1 Start With Healthy Fish

Preventing disease is so much easier than curing it and prevention starts with choosing healthy fish. Walmart is not your best choice! Your best chances of getting disease-free fish are your local fish store or club auctions or directly from other hobbyists.

When selecting fish, you should examine the entire tank for disease. Look for anything that's not "normal". OK, what's normal? Normal, healthy fish appear alert, will eat actively, and behave normally for the species. Fish that feel poorly may have clamped fins, shrunken bellies, hide all the time, refuse to eat, "waggle" when they swim, or show abnormal spots or patches (usually whitish).

OK, every fish in the tank looks normal – now can I take some home and add them to my prize tank? Whoa, not so fast! Realize that normal appearing fish can still harbor disease before they show any symptoms - just like when you have the flu, you're contagious before you start to feel bad. Same with fish. If you only have one aquarium, you may choose to take a chance. If you're fortunate to have an extra tank, use it as a quarantine tank. Acclimate newcomers for at least three weeks. During this time

examine daily for disease and treat if needed. Some experienced aquarists treat all new fish for disease. For advice on quarantine tanks and procedures, ask other club members for help or check the internet.

#2 Dilution Is The Solution

Many aquarists believe that with proper filtration, tank maintenance, i.e. water changes, can be minimized. Advanced aquarists will swear that water changes are the best maintenance you can do for your fish. No matter how powerful your filter or how often you change carbon, fish just seem to do better with regular partial water changes. Breeders will change as much as 50% once or even twice a week! When in doubt, do a water change.

Make this chore easy and lose the bucket brigade. Get a "Python No Spill Clean and Fill" siphon kit. It comes with a 25' or 50' hose and a "pump" attachment that runs by water flow. Other brands work well, too. Hook it up to your faucet and it will pump the old aquarium water down the drain. Reverse the flow at the pump and fill it up. Make sure you follow directions to adjust the faucet flow for temperature and add water conditioner to your tank to remove chlorine/chloramines.

#3 Gourmet Is Great

Flake food is inexpensive, convenient, and nutritious. So are Cheerios, but you wouldn't want to eat them every meal. Your fish will thrive if you feed them a variety of foods. Mix staple flake foods with frozen brine shrimp or bloodworms. Try freeze-dried tubifex or daphnia. Some species like a partially vegetarian diet and for that, feed Spirulina flakes. Live food is the ultimate food and live brine shrimp are easy to hatch and feed. Successful breeders use live food to condition adults and get fry off to a healthy start.

#4 Habitat For Health

A successful aquarium will include room for fish to swim and places to hide. Provide shelter with live or artificial plants, rocks, and driftwood. Or get the sunken pirate ship – it's all good! Good habitat also includes a fish population density that doesn't strain the capacity of the tank. Ask not how many fish can my aquarium hold – ask what's a healthy number. And species must be compatible with each other. When buying fish, tell the seller about your tank and what fish you currently have. They can tell you whether the fish you want will fit in.



#5 Get Schooled

Successful aquarists have taken the time to learn about the needs of the fish they keep and the biological processes at work in a captive environment. It's not that hard or time consuming, but the payoff is a beautiful tank with healthy specimens. Your local aquarium society, your local fish store, and the internet are great resources that will cost you little. Hopefully, this article orients you in the right direction – more to come in future issues.



MOVING WITH A PLANTED AQUARIUM



By Holly Paoni-Wise

“Tank tear down is the last thing I do and set up is the first.”

I sadly see folks selling their tanks, fish, and plants, when they make a short move, even across town, because they do not know how to move them. I've moved multiple tanks across country a few times and an entire fish room across town and have learned what works for me.

Tank tear down is the last thing I do and set up is the first. Our aquariums bring us hours of joy from viewing them, so during the stress of a move, it's important to me to have something to enjoy during breaks in the craziness of moving.

2-3 weeks prior to the move, bump up your normal maintenance routine. You want the tank cleaner than normal beforehand. Prior to extra water changes, using a shish kabob type stick to disturb the substrate will help release any gasses and mulm that has built up in the substrate without harming the plant roots. Getting the build up out of the tank in a controlled way makes it easier on the other end. Do this prior to a couple extra

water changes on the tank, and you'll be miles ahead to a beautiful tank on the other end. The hardest part of moving is always the unpacking !!!

3-4 days before the move, stop feeding the tank. Fast the fish, so they are not producing waste during the move. Also, depending on distance, new water chemistry, etc., I recommend getting some water put aside from your old home to take with you. The more, the better.

Day of the move- catch the fish, and bag up using freshly dechlorinated, correct temp water. Place these bags in a cooler to keep at temp, then DRAIN the tank. Get as much of the water out as possible. Once the water is removed, use cling wrap over the tank to hold the moisture and keep the plants fresh.

Put the filter media in a container of the drained old tank water. You want to keep the material wet so the least amount of beneficial bacteria is lost. I use 3-5 gal buckets, half filled, with water, then add just

the media- whether it be bio balls, sponge filters, filter cartridges, etc., and put on the lid.

I wrap the loose equipment- hoods, lights, heaters, in towels or blankets or bubble wrap to cushion them, and keep them all near the tank. I wrap the tank in bubble wrap or blankets to protect the glass and keep it insulated. If possible, I prefer to keep the tank and fish in eyesight during transport.

Set up All that left is to drive to the new place and reset up the tank. I recommend using as much clean, fresh water from the old place as possible to refill the tank. This prevents pH swings and so on that can be detrimental. Remember the tank was thoroughly cleaned beforehand and is now filled with fresh water from the old house. This buys you time on at the new house to slowly acclimate the tank to a possibly different water chemistry with smaller water changes than you would normally do. So- take a break from the unpacking , sit down, and watch your tank !!



RETICULATED HILLSTREAM LOACH

By Derek Walker

Scientific Name: *Sewellia lineolata*

Common name: Reticulated Hillstream Loach

Distribution: Vietnam

Sexual Differences: I have found that the male has a more rounded nose and the female will have a pointed nose.

Size: Both sexes are about 2".

Sources: I bought these at the MASI auction in Feb of 2014 and I recently bought another group

from aquabid.com

Care: I have found that these guys don't really require much at all. They do fine in just a simple tank and will do well with others. There are many reports that they need high oxygenated water and fast flowing water as well. I did not find that and haven't had any problems yet.

Feeding: They will eat just about anything you put into the tank. They don't need algae on rocks to survive as everyone

states. However, if you do have algae covered rocks, that's a plus because they do like to graze on rocks. My main food is Repashy gel foods and algae wafers.

Water parameters: I use tap water where the range in my area can be from 7.5 pH to as high as 8.5 pH. I really don't check pH.

Temperature: My room stays about 75° and the tank (30 breeder) is usually around 70° as it sits 2" from the floor. My 20 long sits about four foot from the floor and it is usually between 75° and 78°.

Breeding: I actually never witness the spawn of this species. I have just found fry in the tanks.

Tank Setup: The loaches have spawned in two different tanks. My first spawn was in a 30 breeder with sand bottom and one piece of driftwood and a canister filter.

The second group I had in a 20 long with fine white sand and four cobble stones. This tank had a small sponge filter from Swiss Tropicals.

Notes: The fry are so tiny you can't really see them in the tank without using a flashlight. I found fry mainly staying in the wood and around the base of rocks. It takes about 25 days for them to get some color on them. You'll start seeing black spots on the fry and by three months they will start looking like their parents. I have found just feeding the tank normal the fry will do just fine.



TEMPERATURE- HOW LOW CAN YOU GO?

By Ron Coleman

Reprinted from *Cichlid Blues*, May, 2014, newsletter of the Pacific Coast Cichlid Association

Maintaining water temperature is an integral part of the modern aquarium. We spend a lot of money on heaters, and in some cases, chillers, to keep the temperature in our tanks regulated within a tight range.

We know that temperature affects many aspects of an aquarium. For example, we know that temperature affects aggression levels among fish. This is no surprise because most fishes (including all cichlids) are ectotherms, meaning that the body temperature of a fish is determined by the external environment, in contrast to endotherms, such as humans, which generate heat internally. Inci-

dently, there are a number of fishes which are endotherms, including certain tunas and large sharks. The value of endothermy is that it lets the organism operate independently of the surrounding environment. This allows the sharks and tunas to be active hunters in cold waters, whereas their prey are sluggish from the low temperature.

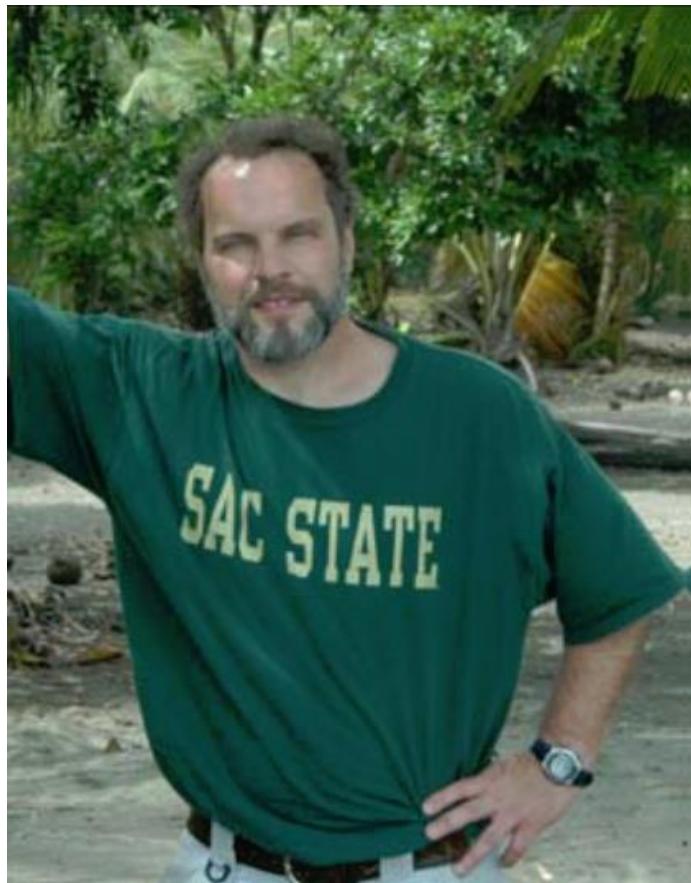
Cichlids are ectotherms and they get sluggish in cold water and typically respond to dropping temperatures by simply sitting still on the bottom of the tank. Indeed, this reduced tolerance to cold water is probably a big factor explaining why cichlids have not invaded further north into North America, though it is not the whole story, because cichlids have invaded much further south in South America; cichlids exist as far south as southern Uruguay and the Buenos Aires region of Argentina, areas which are decidedly temperate rather than tropical or even subtropical.

High temperatures can be a problem. The problem with warm water is not so much the heat, until you get up over about 35°C (95°F), but rather the lack of oxygen. Warm water holds much less oxygen than cool or cold water. Many cichlids can survive remarkably warm water provided they have enough oxygen. This is important to think about when dealing with summer heat spells. If your tanks get too hot, increase the air supply first, and then worry about get-

ting the temperature down. In the case of a power outage on a hot summer day, a portable battery operated air pump can save the lives of your fishes.

Temperature also affects disease. One of the most common afflictions of aquarium fishes is the fish disease, Ich, the short name for the parasite *Ichthyophthirius multifiliis*. This organism is an ectoparasite that forms tiny little white bubbles (cysts) on the outside of a fish. In advanced cases, an infection resembles a coating of icing sugar on the fish. The parasite has a complex life cycle which takes as little as 5-7 days or as long as many weeks to complete, depending on the water temperature. Some of the stages are more susceptible to treatment with a combination of formaldehyde and malachite green and so a common practice is to raise the water temperature in a tank of infected fish to make the parasite cycle faster. This brings the susceptible stages around sooner to be killed off by the medication. Raising the water temperature alone, without medicating, will likely have the opposite, undesirable effect of simply increasing the rate of reproduction of the parasite and the demise of the fish. It is possible that really high temperatures will actually kill the parasite, but such temperatures will likely also kill the fish. More research is needed.

Temperature also affects fish breeding. Many hobbyists have



TEMPERATURE- HOW LOW CAN YOU GO?

found that numerous species of cichlids respond to an increase in water temperature by renewed interest in breeding. Furthermore, once the eggs are laid, extensive work in our lab has shown precisely how the developing eggs and fry respond to temperature changes. Eggs hatch much faster at warmer temperatures than at cold ones. Indeed, for the eggs of substrate spawning cichlids in the New World, this response is so precise that given the size of the egg and the temperature, I can predict within about 10 minutes when that egg will hatch. Not only is the response precise, it is also dramatic. An egg which hatches in 2 days at 33°C (91°F) will hatch in 5 days at 20°C (68°F). The time for the hatchling to become a free-swimming fry becomes even more extended at lower temperatures. For example, convict cichlid fry can be free-swimming in 6 days after the eggs were laid at 33°C (91°F), but take 3 weeks to reach the same point at 20°C (68°F).

Given the importance of temperature, it is not surprising that the hobbyist literature (books and websites) is full of suggestions about the best temperature at which to keep your cichlids. For example, sources frequently provide a temperature which you should aim for. But where does that information come from and how meaningful is it? What are these fishes experiencing in the wild?

What exactly is the temperature

of Lake Malawi or Lake Tanganyika or a river in Central America? This turns out to be a rather complex question.

The simple answer is - it varies. And, in many cases, it varies by quite a bit. Of course, variation is relative. Most cichlid habitats are substantially more constant than a lake in Wisconsin or Ontario, which might go from frozen solid to over 20°C (68°F) in a matter of weeks, but that does not mean that the temperature is a rock solid 26°C (79°F) every day of the year in most cichlid habitats.

For example, Ad Konings (2007) discussed this in his recent book on Lake Malawi, informing us that the average surface temperature of that lake is 23 to 28°C (73 to 82°F), but due to winds and upwelling, surface temperatures may be as low as 20°C (68°F), or rise as high as 30°C (86°F) in sheltered bays.

In contrast, Lake Tanganyika is substantially more stable. There was extensive work investigating the temperature profile of Lake Tanganyika (Coulter 1991) examining such issues as how temperature varies with depth (it gets colder deeper down) and along the north-south axis (it is a little warmer in the north than the south). The bottom line is that the temperature ranges from 23 to 27°C (73 to 81°F) in Lake Tanganyika.

How about tropical rivers? By their very nature, rivers will be more variable in temperature than lakes. The flow in a river

varies and flow can substantially alter water temperature. I have worked since 1989 in the Rio Puerto Viejo in the northeast lowlands of Costa Rica and for the last decade I have had temperature loggers dutifully recording the temperature every 30 minutes at a given location in the river. The results are rather surprising. The temperature changes dramatically, not just on a seasonal basis, or even from day to day, but within each day, the temperature goes up and down. As you might expect, the river cools at night, with temperatures often dropping to 21°C (70°F) or cooler. During a hot sunny day, that same water might warm to 28°C (81°F). This kind of fluctuation has not often been noted in the past but the reason is not surprising.

Many accounts of the temperature of cichlid habitats are recorded by people as they catch fish. So for example, "species x was caught in the Rio Blanco and the water temperature measured 25°C..." Typically, but not always, people catch fish during the day, so the temperature they record is at the warm, middle part of the day. If they were to catch fish at night, and have a thermometer that they could read at night, and were so inclined as to take the temperature at night, they might find the water substantially cooler.

So what does this mean?

The take home message is that for Lake Tanganyika cichlids, you probably want to keep your

aquaria within the 23-27°C (73 to 81°F) range.

But for many other cichlids, you have a lot more latitude. In fact, as an experiment, over this past winter, I kept some cichlids in a large aquarium (220 gallon) in my garage with just a little 50 Watt heater to take the edge off the cold. The tank was covered in Styrofoam but it still got down to 14°C (57°F). The cichlids in there did fine. They did not move much and they did not eat much, but amazingly none of them died. The fact that the tank cooled down very slowly in the fall and heated up slowly in the spring was probably helpful.

Further work is needed on this because the rate of heating and cooling is likely very important when people attempt to ship fish. Fish in boxes on airplanes can go from very warm while sitting at the airport (or worse yet baking on the tarmac on a sunny day) to frightfully cold in the belly of a jet, all within a few minutes. We need to know more about this.

References:

- Coulter, G.W. (Editor). (1991) Lake Tanganyika and its life. Oxford University Press, New York.
- Konings, A. (2007) Malawi cichlids in their natural habitat. 4th Edition. Cichlid Press, El Paso, Texas.

PYGMY RAINBOWFISH—MELANOTAENIA PYGMAEA



This is an awesome looking dwarf rainbow seldom seen in the hobby. With males maxing out at 3 inches and females a little smaller, they are suitable for many types of aquariums. Males show a metallic blue body with a yellow, silver and white trim on the fins and body. They have a reddish/orange band of color that runs from their first dorsal fin to their lips and fades into their belly region. This varies in intensity depending on the type of lighting, time of day, and their general mood. Females show mostly a silver body color with almost no color in their fins and they have a much thinner body. The edge of tail on the males is trimmed with a yellowish colored band, which is much wider than the females; this makes it a little easier to sex the fish at an early age even before any colors are seen on the fins.

My group of ten adults is housed in a 29 gallon aquarium with a

bare bottom and filtered with a sponge filter. I keep one floating and one sunken yarn mop for cover and a place to deposit eggs when spawning. There is very low light overhead and the tank is well covered as the fish are active and feisty, especially at feeding time. Nothing special is done to maintain their water conditions other than weekly water changes of 30-50%. The pH is around 7.2, temperature around 78°F and a TDS reading of 248 ppm.

Diet is easy - they will accept anything they can fit in their mouths. In nature they are probably feeding on small insects & crustaceans.

Mine are given a wide range of foods, including live mosquito larvae, daphnia, blackworms, baby brine, frozen bloodworms & chopped mysis shrimp, Repashy super gel foods, and assorted flake & small pellet foods.

These are typical mop spawners, depositing eggs directly into the mop. I always offer a floating and a sunken mop as there seems to be a preference with different species. Mine prefer a sunken mop. I normally pull the mop once I see eggs and place it in a smaller tank for hatching. The pulled mop is replaced with a fresh clean mop. For about a week afterwards, any eggs found daily in the new mop are picked by hand and dropped on to the original mop. Since the eggs take about 7-9 days to hatch, there won't be a huge size difference between the first eggs hatched to the last eggs. There is always a concern of cannibalization among siblings.

The hatching tank is kept as warm as the spawning tank and placed in an area where little or no light reaches it. An air stone is added with only a couple of very light streams of bubbles rising from it to avoid a heavy current. If the water movement is too vigorous when the fry hatch, they will quickly use their energy fighting the current, quickly get exhausted, and die!

First food for them must be very small as the fry are tiny. Since the fry stay near the surface, a floating powder food works great for them, I use SERA brand Micron® powdered food. By dipping just the tip of a Q-tip® into the powder to get some to stick to it and then gently tapping it over the surface of the water, it softly hits the water surface and spreads out rather than sinking. This gives the fry a chance to feed from it for an extended period of time before it sinks. Green water is also added and if you have some super fine powdered foods of another type, it's worth trying too. One shouldn't get disappointed if you notice the number of fry dwindling in the weeks after hatching. It often happens when dealing with fry as small as these guys! It will normally take about two weeks before the fry are large enough to offer them banana worms and another week or more to try live baby brine. Once the fry start accepting live baby brine, their growth rate increases dramatically and rate of grow out success from this point on is excellent.

By Eric Bodrock

Reprinted from *Finformation*,
Oct 2014, Greater Pittsburgh
Aquarium Society



OUR EXPERIENCE BREEDING THE CRYSTAL RED SHRIMP



Early last summer, we were able to acquire a starter colony of juvenile Crystal Red Shrimp (*Caridina cantonensis* sp. Red). We had read in several articles that these shrimp were somewhat more difficult to keep than the Neocaridina varieties and Tiger shrimp that had done so well for us in the past, but we were ready for a challenge. We chose a 10 gallon tank that had been running for 3 years, as invertebrates are typically not very forgiving when it comes to water quality. We received 21 healthy juvenile shrimp for our starter colony.

As it turns out, keeping the Crystal Red Shrimp did not prove to be nearly as much of a challenge as we had expected from our research. The shrimp were colorful and active within

an hour of going into the tank and we did not lose any. Our next step was to grow the shrimp out to sexual maturity so they would begin to reproduce. Feeding CRS is quite easy, and they will readily accept anything we offer. Our colony's diet consists of New Life Spectrum Crustacean Formula, Ken's Fish brine shrimp sticks, Hikari algae wafers, Repashy invertebrate formula, and the occasional slice of fresh zucchini. Dwarf shrimp are sensitive to high levels of nitrate in their tank water, so in order to keep water quality excellent for them, we do a 30-40% water change twice a week. This schedule keeps our nitrate level around 5 ppm. By early fall, our shrimp had matured to breeding size, and we started to see berried females. Around the first week of November, we started to see tiny shrimplets here and there. By the end of the month, the shrimp population had exploded and it seemed like there were shrimplets on every surface in the tank.

Raising shrimplets is very easy. Unlike many species of fish, the adults will not bother the shrimplets at all, so they do not have to be separated. Crystal Red Shrimp do not have a larval stage, so the shrimplets are miniature versions of adult shrimp as soon as they hatch. Feeding a good diet and monitoring water quality are key to growing out juvenile shrimp, and within a few months they will grow to about half an inch.

Crystal Red Shrimp are well

suited to the tap water in much of the Atlanta area, because they prefer soft water (pH 6.4-6.8). They make an attractive addition to a planted aquarium, and healthy shrimp are quite active, spending a lot of their time out in the open picking at surfaces in the tank. They will not interbreed with Neocaridina (cherry shrimp, yellow shrimp, blue pearl shrimp, rili shrimp, etc.), so it is possible to house them together. When setting up a shrimp tank, it is generally best to use a sponge filter rather than a power filter or canister. Newly hatched shrimp are extremely small, and the intake strainer on a power filter or canister poses a huge threat to them. If the tank is intended for breeding, it is usually not a good idea to house shrimp with fish. Young shrimp are easy prey for many species, and fish may provide too much competition for food. Shrimp are more comfortable in their surroundings when they are provided with plenty of plant cover. We use a large clump of java moss with *Myriophyllum mattogrossense* floating on the surface. It can be very difficult to spot newly hatched shrimplets, so we always use a siphon and bucket for water changes. It is highly likely that shrimplets will be siphoned out of the tank at some point, so the bucket ensures that they are retrievable using a brine shrimp net. If you are looking to branch out in the hobby with a shrimp aquarium, we highly recommend the Crystal Red Shrimp.

By Marcie DiCenso

Reprinted from the March 2014 Fish Talk of the Atlanta Area Aquarium Association

SLICK FIX FOR FISH TRICKS

You know you always wanted to get your Oscar to do more than take food from your hand. Now you can! R2 Fish School provides a kit that will help you teach your fish eight amazing tricks.

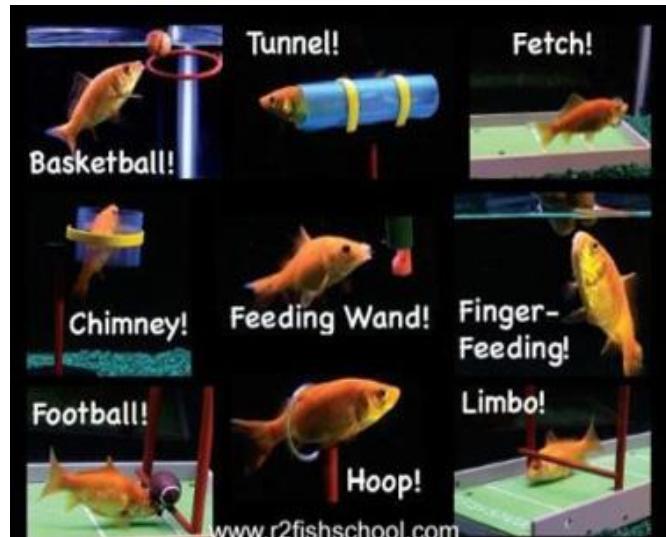
The training kit comes complete with:

- Instructional DVD
- R2 Fish School training platform
- Over 20 compatible training accessories
- All new feeding wand

- Instructional manual with 100+ photos
- Compact base for bowls or small tanks

According to the seller, it takes, on average, two 15 minute sessions a day to learn one trick. Successive tricks build on each other. The whole shebang is just \$29.99.

More information is available at www.r2fishschool.com. The videos are worth your time to visit.



MAYBE YOU CAN BE TOO INTO YOUR FISH



STINGRAY MAY BE WORLD'S LARGEST FRESHWATER FISH



Honey, we're gonna need a bigger tank. Check the numbers

- 7.9' across
- 14' long
- Estimated 700-800 lb.

This makes it bigger than a Mekong Delta catfish estimated at 693 lb. that is recognized by Guinness World Records.

Captured in March in Thailand's

Mae Klong River about an hour outside of Bangkok, the ray had previously been captured in 2009 and measured 6.5' across and 15' long.

"Her tail might have been shortened by some accident," says Nantarika Chansue, a veterinarian and professor at Chulalongkorn University in Bangkok who helped capture and measure the ray. The ray

was pregnant and had bite marks that may have come from a male.

As you might expect, the species is listed as endangered by the International Union for the Conservation of Nature due to dams that have affected habitat, pollution, and oil spills.

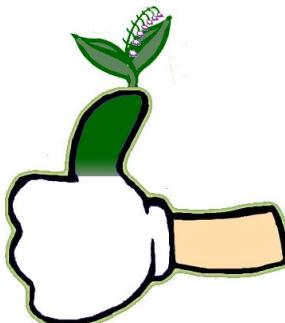
Capturing this individual at two points in time allows scientists to better understand growth

rates. Since most fish grow as long as they live, this specimen was estimated to be 35-40 years old. Stingrays are opportunistic bottom feeders, eating fish, shrimp, mussels, clams, and similar prey.

The capture and release were filmed for an episode of the ABC show *Ocean Mysteries*. It is not known whether the ray has retained an agent.

March/April Horticulture Award Program by Mike Hellweg

Aquarist	Species	Common Name	Key	Points	Total	Note
Gary Lange	<i>Ludwigia</i> species x. <i>lacustris</i>		V	10	1805 MASI First!	
	<i>Rotala</i> sp. Vietnam		V	15		
Holly Paoni Wise/Kevin Wise	<i>Anubias barteri nana</i>	Dwarf Anubias	IB	20	1155	
	<i>Echinodorus bleheri</i>	Bleher's Amazon Sword	IB	20		
Steve & Kathy Deutsch	<i>Aponogeton ulvaceus</i>		IB	10	80	
Chuck Bremer	<i>Eleocharis acicularis</i>	Dwarf Hairgrass	V	10	250	
	<i>Ludwigia</i> sp. <i>repens</i> x <i>arcuata</i>	Narrow Leaf Ludwigia	V	10		
	<i>Riccia fluitans</i>	Crystalwort	V	10		
	<i>Spirodea polyrhiza</i>	Giant Duckweed	V	5		
	<i>Utricularia gibba</i>	Dwarf Bladderwort	V	5		
Mike Huber	<i>Aponogeton boivinianus</i>		V	15	1500	
	<i>Cryptocoryne spiralis</i>		V	15		
	<i>Echinodorus cordifolius</i>	Radican Sword	V	15		
	<i>Echinodorus cordifolius</i> Marble Queen	Marble Queen Sword	V	15		
	<i>Echinodorus</i> sp. Kleiner Bar	Kleiner Bar Sword	V	15		
	<i>Echinodorus</i> sp. Kleiner Bar	Kleiner Bar Sword	IB	20		
	<i>Echnodoras grandiflorus</i>	Rangeri Sword	V	15		
	<i>Potamogeton</i> sp.		V	10	Pending I.D.	
	<i>Aponogeton madagascariensis</i>	Madagascar Lace Plant	V	20		
	<i>Cabomba caroliniana</i>	Fanwort	IB	15		
	<i>Crinum calamistratum</i>	Waffle Leaf Bog Lily	V	20		
	<i>Cryptocoryne parva</i>		V	15		
	<i>Echinodorus osiris</i>	Red Melon Sword	V	15		
	<i>Echinodorus paniculatus</i>	Graceful Sword	V	15		
	<i>Echinodorus</i> sp. rose	Red Rose Swordplant	V	15		
	<i>Echinodorus</i> sp. Kleiner Bar	Kleiner Bar Sword	S	20		
	<i>Echinodorus</i> sp. Oriental	Oriental Sword	V	15		
	<i>Lemna minor</i>	Dwarf Duckweed	V	5		
	<i>Lindernia rotundifolia</i>	Watermelon Plant	V	10		
	<i>Ludwigia glandulosa peruvensis</i>	Red Star Ludwigia	V	10		
	<i>Myriophyllum heterophyllum</i>	Red Foxtail	V	10		
	<i>Rotala macrandra</i> narrow leaf		V	15		
	<i>Rotala wallichii</i>		V	15		



Publicity Report

By Holly Paoni-Wise

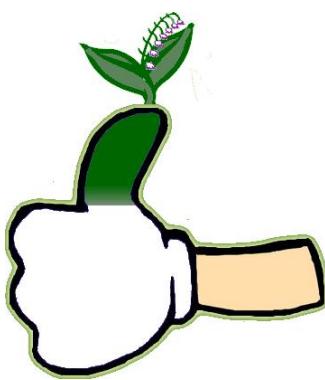
Facebook has become much more active for the club than the forum. But things on Facebook get lost and buried so quickly, it really helps get the word and information out for members to

like, share, and comment on posts. Also don't forget to go look up at the top for the pinned post, or under the "Files" tab right under the top photo. Auctions and meeting attendance have been growing, so it's working. Thank you—just keep it up folks, because it really does help things on my end!



January/February HAP Report by Mike Hellweg

Aquarist	Species	Common Name	Key	Points	Total	Note
Bruce Mayhew	<i>Anubias barteri nana</i>	Dwarf Anubias	IB	20	225	
	<i>Anubias barteri nana "petite"</i>	Petite Anubias	V	15		
Gary Lange	<i>Bacopa australis</i>	Southern Bacopa	V	20	1780	
	<i>Cabomba caroliniana pulcherrima</i>	Purple Cabomba	V	10		
	<i>Cryptocoryne noritoi</i>		V	15		MASI First!
	<i>Cryptocoryne usteriana</i>		V	15		
	<i>Cryptocoryne affinis haerteliana</i>	Cryptocoryne affinis haerteliana	V	15		
	<i>Echinodorus bleheri compacta</i>	Compact Sword	V	15		
	<i>Echinodorus sp. Kleiner Prinz</i>	Kleiner Prinz Sword	V	15		
	<i>Hygrophila lancea</i>	Lance Leaf Hygro	V	10		MASI First!
	<i>Ludwigia sp. repens x arcuata</i>	Narrow Leaf Ludwigia	V	10		
	<i>Microsorum pteropus Red</i>	Red Leaf Java Fern	V	10		MASI First!
Evan Wright	<i>Microsorum sp. Rooster Tail</i>	Rooster Tail Java fern	V	10		MASI First!
	<i>Microsorum sp. trident</i>	Trident Leaf Java fern	V	10		
	<i>Nesea triflora</i>		V	15		
	<i>Anubias barteri nana petite</i>	Petite Anubias	V	15	375	
	<i>Cryptocoryne wendtii tropica</i>	Cryptocoryne wendtii tropica	V	15		
Chuck Bremer	<i>Hygrophila corymbosa siamensis</i>	Siamese Giant Hygro	V	5		
	<i>Staurogyne repens</i>		V	20		
Mike Hellweg	<i>Staurogyne sp. Porto Velho</i>		V	20		MASI First!
	<i>Cabomba caroliniana pulcherrima</i>	Purple Cabomba	IB	15	210	
	<i>Hygrophila corymbosa angustifolia</i>	Willow Leaf Hygro	IB	10		
Mike Huber	<i>Echnodorus sp. x Rose</i>	Rose Sword	V	15	3445	
	<i>Sagittaria subulata var. pusilla</i>	Sagittaria subulata var. pusilla	V	5		
	<i>Sagittaria subulata var. pusilla</i>	Sagittaria subulata var. pusilla	IB	10		
	<i>Alternanthera reineckii rosea</i>	Copperleaf Alternanthera	V	15	1165	
	<i>Alternanthera reineckii scarlet</i>	Scarlet Temple Plant	V	15		
Mike Hellweg	<i>Anubias afzelli frazeri</i>	Frazer's Anubias	V	15		
	<i>Anubias hastifolia</i>		V	15		
	<i>Anubias lanceolata</i>		V	15		
	<i>Anubias sp. Africa</i>		V	15		
	<i>Anubias barteri nana</i>	Dwarf Anubias	V	15		
	<i>Anubias barteri round leaf</i>	Roundleaf Anubias	V	15		
	<i>Anubias congensis</i>	Congo Anubias	V	15		
	<i>Bacopa monnieri</i>	Water Hyssop	V	10		
	<i>Bacopa sp. colorata</i>	Pink Bacopa	V	10		MASI first!
	<i>Bolbitis heteroclita</i>	Asia Trilobe Fern	V	10		
	<i>Cabomba caroliniana pulcherrima</i>	Purple Cabomba	V	10		
	<i>Cardamine lyrata</i>	Chinese Water Ivy	V	10		
	<i>Cladophora aegagropila</i>	Moss Ball	V	5		
	<i>Cryptocoryne undulata</i>		V	15		



Aquarist	Species	Common Name	Key	Points	Total	Note
	<i>Cryptocoryne walkeri lutea</i>	<i>Cryptocoryne walkeri lutea</i>	V	15		
	<i>Cryptocoryne wendtii tropica</i>	<i>Cryptocoryne wendtii tropica</i>	V	15		MASL first!
	<i>Echinodorus bleheri compacta</i>	Compact Sword	V	15		
	<i>Echinodorus</i> sp. <i>Ozelot</i>	Ozelot Sword	V	15		
	<i>Echinodorus</i> sp. <i>Red Flame</i>	Red Flame Sword	V	15		
	<i>Eleocharis acicularis</i>	Dwarf Hairgrass	V	10		
	<i>Hygrophila difformis</i>	Water Wisteria	V	5		
	<i>Isoetes lacustris</i>	Octopus Plant	V	10		
	<i>Lilaeopsis brasiliensis</i>	Micro Sword	V	10		
	<i>Limnobium laevigatum</i>	Brazilian Frogbit	V	5		
	<i>Lobelia cardinalis</i>	Cardinal Flower	V	10		
	<i>Microsorum</i> sp. <i>narrow leaf</i>	Narrow Leaf Java fern	V	10		
	<i>Monosolenium tenerum</i>	Pelia	V	5		
	<i>Myriophyllum tuberculatum</i>	Red Water Milfoil	V	5		
	<i>Nymphaea lotus zenkeri</i>	Tiger Lotus	V	20		
	<i>Nymphoides aquatica</i>	Banana Plant	V	20		
	<i>Ophiopogon japonicus pussillus</i>	Dwarf Mundo Grass	V	10		
	<i>Pogostemon helferi downei</i>		V	15		
	<i>Sagittaria subulata</i>		V	5		
	<i>Spathiphyllum wallisi</i>	Brazilian Wax Sword	V	15		
	<i>Staurogyne repens</i>		V	20		
	<i>Vallisneria spiralis</i>	Italian Val	V	5		
	<i>Zephyranthes candida</i>	Dwarf Onion Plant	V	20		
	<i>Anubias minima</i>	Least Anubias	V	15		
	<i>Aponogeton ulvaceus</i>		IB	10		
	<i>Bacopa australis</i>	Southern Bacopa	V	20		
	<i>Cabomba caroliniana</i>	Fanwort	V	10		
	<i>Cryptocoryne crispatula balansae</i>	Waffle Leaf Crypt	V	15		
	<i>Cryptocoryne wendtii wendtii</i>	Green Wendtii Crypt	V	15		
	<i>Cyperus helferi</i>		V	10		
	<i>Echinodorus argentinensis</i>	Argentine Sword	V	10		MASL first!
	<i>Echinodorus grisebachii</i>	Amazon Sword	V	15		
	<i>Echinodorus osiris rubra</i>	Red Melon Sword	V	15		
	<i>Echinodorus</i> sp. <i>Indian Red</i>	Indian Red Sword	V	15		
	<i>Echinodorus</i> sp. <i>Rubin</i>	Red Rubin Sword	V	15		
	<i>Hemianthus callitrichoides</i>	Dwarf Baby's Tears	V	15		
	<i>Ludwigia palustris</i>	Red Water Purslane	V	10		
	<i>Ludwigia</i> sp. <i>repens x arcuata</i>	Narrow Leaf Ludwigia	V	10		
	<i>Lysimachia nummularia</i>	Moneywort	V	10		
	<i>Micranthemum micranthemosides</i>	Baby Tears	V	15		
	<i>Microsorum pteropus windelov</i>	Lace Java Fern	V	10		
	<i>Nomaphila stricta</i>	Giant Hygro	V	5		
	<i>Rotala rotundifolia</i>		V	15		
	<i>Vallisneria asiatica biwaensis</i>	<i>Vallisneria asiatica biwaensis</i>	V	5		

Breeders Award Program by Steve Edie

Month	Species	Common Name	Points	Bonus	CARES	Total
Charles Harrison	Limia sp. "Tiger" #	Tiger Limia	0			2820
	Pachypanchax sakaramyi #@		0	15		2835
	Xenotoca variata "Zacupu" #		0			2835
Mike Hellweg	Allotoca meeki "Lago de Opopeo" *@	Zirahuen Goodeid	15	5	15	6354
	Chapalichthys encaustus @	Barred Splitfin	15		15	6384
Mike Huber	Metriaclima lombardoi		10			323
	Skiffia bilineata @		20		20	363
	Xystichromis phytophagus @	Christmas Fulu	10	10		383
Todd Powers	Pterophyllum scalare ^	1/2 Black Angel	0	2		122
Nick Scarlatis	Melanotaenia boesemani @		10		10	780
Pat Tosie	Ameca splendens "Rio Colombo" *@		15	5	15	4695
	Amphilophus labiatus "Yaxya" *		15	5		4715
	Lethrinops albus "Kande Island"		15			4730
	Rocio octofasciata "Escondido" *		5	5		4740
Month	Species	Common Name	Points	Bonus	CARES	Total
Chuck Bremer	Ameca splendens @	Butterfly Goodeid	15		15	282
	Xiphophorus nezahualcoyotl	Northern Mountain Swordtail	5			287
	Xiphophorus xiphidium	2 Spot Platy	5			292
Charles Harrison	Corydoras habrosus	Dwarf Checkered Cory	10			2845
Mike Hellweg	Aistogramma atahualpa	Sunset Apisto	15			6399
	Bunocephalus coracoideus ***	Banjo Catfish	20	15		6434
Mike Huber	Cyphotilapia frontosa "Kigoma"		15			398
	Phallichthys quadripunctatus @		5	5		408
Bruce Mayhew	Astatoreochromis alluaudi		10			355
	Hemichromis guttatus "Nigeria"		10			365
Nick Scarlatis	Puntigrus tetrazona		10			790
Debbie Sultan & Tom Corradini	Herichthys tamasopoensis "Rio Tamasopo" *		10	5		480
	Poecilia salvatoris "Rio Colomo, Puerto Vallarta" *		5	5		4750

* = First MASI species spawn (5 point bonus)

for additional color varieties

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

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

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

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

@ = 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



FISHES AS DISHES

PATRICK A. TOSIE, SR.

Blackened Tilapia Sandwich

With Cilantro Lime Mayonnaise

Ingredients:

1/4 cup sweet paprika
 2 tablespoons ground thyme
 2 teaspoons onion powder
 1 teaspoon garlic powder
 1 teaspoon salt
 1/4 teaspoon ground red pepper
 4 Tilapia fillets
 1 stick (1/2 cup) butter
 4 Kaiser buns, split, buttered and
 toasted
 Mango salsa
 Cilantro Lime Mayonnaise (See be-
 low for recipe)
 with top half of bun.

Directions:

In a shallow dish, combine first 6 ingredients. Pour melted butter into another shallow dish. Dip fish fillets in melted butter and coat with sea-
 soning mixture. Heat a cast iron
 skillet over medium-high heat until
 hot. Cook prepared fish, in batches if
 necessary, 3 to 4 minutes per side, or
 until fish flakes easily with a fork.
 Spread Cilantro Lime Mayonnaise
 evenly over toasted buns. Place
 blackened fish on bottom half of bun,
 top with mango salsa, and cover with
 top half of bun.

Prep time: 10 minutes, Cook time 20
 minutes, Yield: 4 servings

**Cilantro Lime Mayonnaise**

1 cup mayonnaise
 1/4 cup freshly chopped cilantro
 1 tablespoon lime juice

Cilantro Lime Mayonnaise**Directions:**

In a small bowl, combine all ingredients. Cover
 and chill.

Mango Salsa

1 mango, peeled and diced
 1/2 cup peeled, diced cucumber
 1 tablespoon finely chopped jalapeno
 1/3 cup diced red onion
 1 tablespoon lime juice
 1/3 cup roughly chopped cilantro

Mango Salsa Directions:

Combine the mango, cucumber, jalapeno, red
 onion, lime juice and cilantro leaves and mix
 well. Season with salt and pepper, to taste.

Classifieds

Buy/Sell	Member	Item	Bid/Asked	Contact
Sell	Jim Miller	Bloodworms and brine shrimp. Brine Shrimp eggs 16 oz. can.		314-638-1134
Sell	Charles Harrison	Thiosulfate crystals (Chlorine Remover) - pound	\$4.00	
		OTO double strength Chlorine/Chloramine test kits - 4 ounce	\$12.50	(314) 894-9761
		Flubendazole, 10% powder 25 grams	\$20.00	charles@inkmkr.com
		Lavamisole HCl Powder - 5 grams treats 100 gallons	\$10.00	
		Methylene Blue 5% solution (4 ounces)	\$12.75	
		Acriflavine Concentrate (4%) solution, 2 ounces	\$12.70	
Buy	Mike	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

MASI Members can place a classified ad in the Darter for free. Ads may be up to 30 words in length. Send your ads to the editor. The ad will run for one issue unless you specify how long to run it, in which case it will run as requested.

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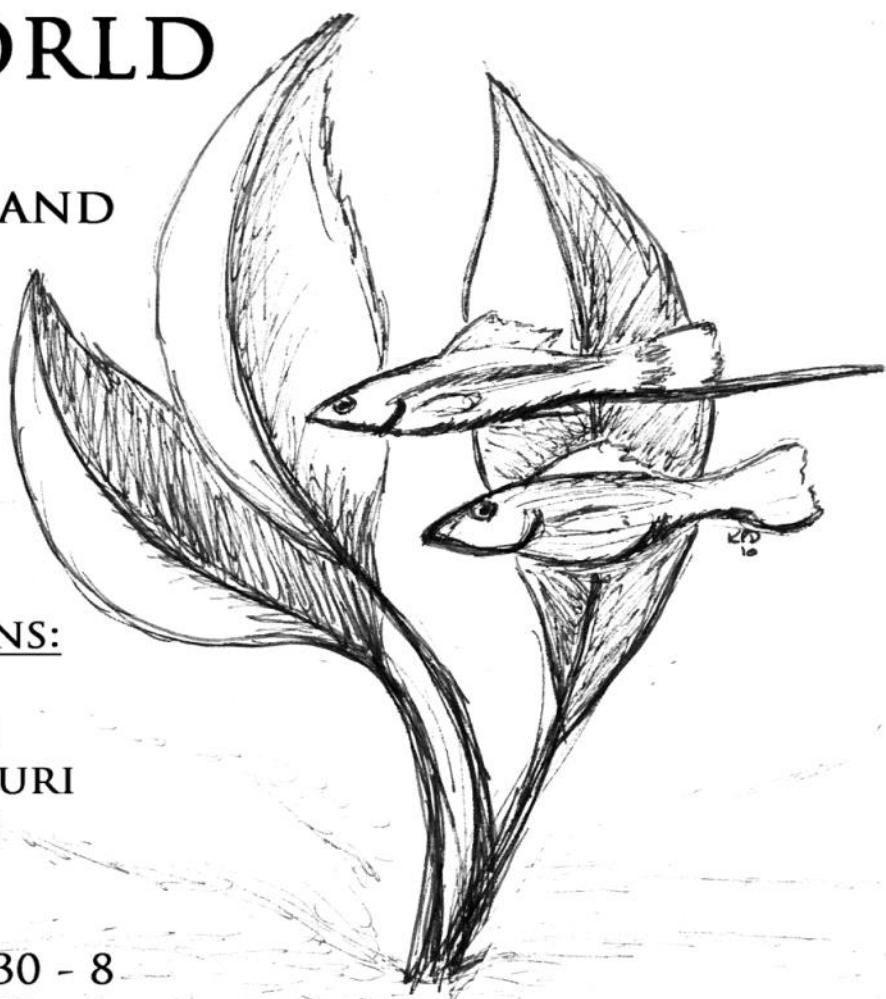
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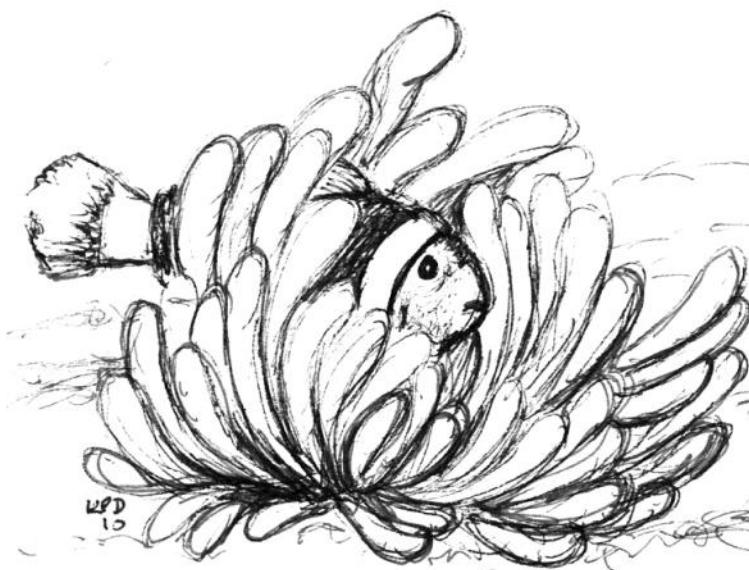
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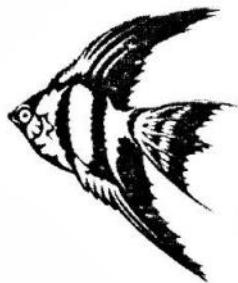
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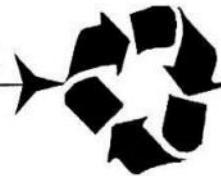
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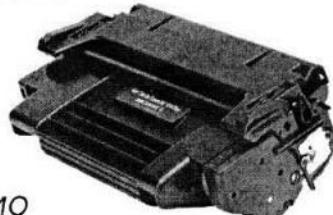
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