

The Darter

Nov-Dec

2006



Missouri Aquarium Society, Inc.

St. Louis, Missouri

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MASI's official web page: www.missouriaquariumsociety.org

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The Missouri Aquarium Society will exchange their publication, 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 with that society, unless advised to the contrary.

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THE DARTER (ISSN 0192-7833) is published bi-monthly 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.

Places to Be Things to See

THURSDAY December 21, 2006

General Meeting, 7:30 PM @ Dorsett Village Baptist Church

SUNDAY January 7, 2007

Winter Swap Meet, Noon to 3:00 @ the Stratford Inn

THURSDAY January 18, 2007

General Meeting, 7:30 PM @ Dorsett Village Baptist Church

SATURDAY January 27, 2007

Executive Council, 7:30 hosted by Gary Lange

SUNDAY February 11, 2007

Auction, 12:00 @ the Stratford Inn

Contact: John Van Asch – 618-277-6165, johnsfishy@att.net

THURSDAY February 16, 2007

General Meeting, 7:30 PM @ Dorsett Village Baptist Church

THURSDAY February 16, 2007

General Meeting, 7:30 PM @ Dorsett Village Baptist Church

SUNDAY April 22, 2007

Auction, 12:00 @ the Stratford Inn

Contact: John Van Asch – 618-277-6165, johnsfishy@att.net

SUNDAY August 19, 2007

Auction, 12:00 @ the Stratford Inn

Contact: John Van Asch – 618-277-6165, johnsfishy@att.net

SUNDAY October 7, 2007

Fall Swap Meet, Noon to 3:00 @ the Stratford Inn

SUNDAY November 18, 2007

Auction, 12:00 @ the Stratford Inn

Contact: John Van Asch – 618-277-6165, johnsfishy@att.net

Presidential Preamble

By Mike Hellweg

As I'm writing this it's a rainy fall day. Game 4 of the World Series has been postponed due to rain. As you read this you're probably getting things ready for the Holidays, and may have already celebrated the start of the Season, Thanksgiving.

I hope that with the rush of the Season you don't forget your fishy friends. Keep up with the water changes, try feeding some special treats of frozen or live food, and spend some time just watching them – after all, that's why we all originally set up the tank! I'm surprised at how many hobbyists grow their hobby to the point where they never have time to just sit and watch. Take the time and try it, if you've not done it in a while.

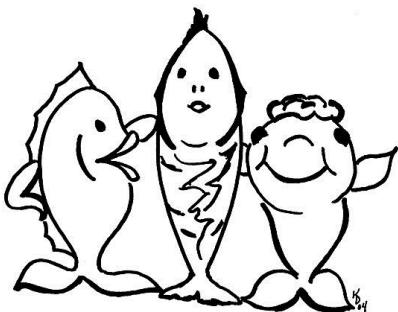
As always, our Christmas party will be at the December meeting. No fishy stuff – only a short business meeting will be taken care of quickly. After that, it will be all fun, friends, and food. Please bring a side dish. Rosie Yaekel will be taking care of the meats again this year. Refreshment chair Roy Brandhorst and Rosie will need some help getting things set up, so please try and get there a bit early. If you get a chance, contact Roy or Rosie and see what they need for the dinner.

As we do each year, we will again be collecting for the less fortunate. Please bring a canned good or non-perishable item for the Church's food pantry. Also, please bring a gift (fishy or non-fishy) for the annual gift exchange. If for some reason you can't bring either a food item, side dish, or gift for the exchange, please feel free to come anyway! It's a party! All are welcome. Bring your family, especially the kids as we might even have a visitor from the North Pole! And come ready to relax, have fun, and celebrate.

**Merry Christmas! Happy Hanukah!
And Happy New Year to all!**

...and for now, 'nuff said...

Membership - Renew Now



Yearly membership in the Missouri Aquarium Society, Inc. is \$20 per calendar year. Membership includes the Darter subscription for the year, which is currently 6 issues. New memberships and renewals can be submitted at club functions such as meetings and auctions, or by contacting our membership chair, Kathy Deutsch at 314-741-0474, katfish@i1.net, or 9 Old Jamestown Ct. Florissant MO 63034

2007 Monthly Bowl Show Classes

You must show in at least 7 monthly Bowl Shows to compete for the new Annual Bowl Show Champion Award. The winner will be determined by the entrant with the most points overall for the year.

Points earned for each entry: 5 points for first place, 3 points for second place, 2 points for 3rd place, one point each for all other entries – up to 5 non-placing entries per month.

All entries are sight-judged.

Each month there will be one special class and one open class.

January - Cyprinids: Barbs, Danios, Rasboras, Minnows, Goldfish

February - Sharks, Loaches, Eels, and Oddballs

March - Cichlids

April - Killies

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

June - Catfish

July - Livebearers

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

September - Rainbowfish

October - Aquatic Plants

November - Aquatic Critters: Aquatic Invertebrates, totally aquatic amphibians (Pipid frogs/toads, Caecilians)

Editor's Notes

Steve Deutsch

Hard to believe it has been another year. This wraps up my third year of editing this. The job is made much easier by all the other people who contribute to your Darter. Charles Harrison continues to print the Darters for us. Gary McIlvaine has taken over as our postman, making sure the Darter is sent out once it is printed and collated. Members of the club have helped collate every issue, either at the general meeting or the council meeting. Pat Tosie, our previous editor, continues as publisher, keeping us current with the post office mailing permit. Steve Edie continues to provide the Exchange articles from around (and outside) the country. And of course all of you who submit an article make the Darter what it is. I could not do this without everyone's help. Thank you.

This Darter is somewhat of an achievement for MASi - we do not have any exchange articles in this issue, because we had so many MASi articles. I did not want to save any of the MASi articles, as this is the last issue for the year and I wanted to enter all of them in the judging for this year's Ralph Wilhelm publication award. Charles Harrison, Mike Hellweg, Lawrence Kent, Gary McIlvaine, and Ed Millinger all contributed articles for this issue.

It is not too soon to start writing articles for next year's Darters - the article deadlines are December 15, February 15, April 15, June 15, August 15, and October 15.

When the Lights Went Out in South County . . . or What to Do for a Prolonged Power Outage

By Charles H Harrison, Ph D

We live in St. Louis Missouri, USA. Heartland America, not supposed to be without power anytime, HAH! Not so!

Wednesday afternoon, late, July 19th, I was talking over our backyard fence with our next door neighbor about how hot and dry it had been this summer. The Weatherman had promised rain that afternoon but I had the sprinkler going anyway, in disbelief. Quite suddenly the clouds moved in and it got dark as the wind out of the North picked up in a big way. The clouds began swirling around above us. I turned the water off and went inside. And none too soon! It began to rain, horizontal rain! Heavy rain, fierce swirling winds. Bits of leaves peppered our windows on the North side, the kind of bits of leaves produced by tornadic winds, high wind sheer and hail. Ten minutes later the yards and street was full of broken trees and impassible.

The lights went out, the AC went quiet when the broken treetop landed upside down on the power lines behind our house. The power lines almost reached the 4-foot chainlink fence in our back yard. Fortunately, the Charter TV cable held it off. Outside communication was just about nill. The phone lines were jammed. Calling 911 and reaching the electric company was hopeless. We got a reminder that portable phones in the house only work when the house power works. So glad we still have a land line that plugs into the telephone wall line so at least we had telephone service. Other than that, we were on our own.

There have been lots of suggestions for the power companies to bury all of the connecting lines, keep them out of the trees, the ice, the wind storms, etc., but I don't think I'm going to see that in my lifetime. By Thursday noon most of the members of the neighborhood were gone, moved out to the nearest relative's home or motel with power. We were very much alone in our subdivision. The traffic signals were dark around us on Telegraph Rd. and no street lights either. It wasn't a pleasant situation and I wasn't about to leave the generator unattended for hours to do the program scheduled for the MASI meeting that Thursday night.

We purchased a gasoline generator in 2002. I have had to start it up 5 times now for the power outages here in the midwest. The ice in the trees and power lines and the wind storms that come through this part of the country can be sneakers. The last big storm that blew through here took out power to about 750,000 homes and businesses for 3 nights in our part of the county and a second storm took things down for another part of the northern metro area for an additional 4 nights. Some people were without power for 7 to 10 nights. Many on the east side and up north were without drinkable water as well. That was this July, 2006! During that time the temperatures reached 100+ F during the days and broke some records for high temps. The humidity was nearly 99% along with the heat. We were lucky, only 3 nights - but we did have a generator, 5500 watts worth. That is enough to keep the refrigerator and freezer running along with some fans and the air compressor for the fish room. The neighbors up the street came down to ask what size generator they should go try to find. I told them anything less than 9 HP was a waste of money. That'll usually get you about 4,000 to 5,000 watts and it's best to have a 220 volt outlet on the generator so you can plug it into your house circuit without all the extension cords.

One does have to plan ahead though. I had to travel 20 miles to find a gas station open to purchase gasoline for the generator. It is good to have some stored around just in case. Another precaution - we have installed is battery back up for the fish room air pump. I purchased an inverter/battery charger combination along with a Deep Cycle Marine battery. This one is 2200 watts output but depends upon the Amp hour rating of the battery to what it will run and how long. The biggest I could find for a single battery is a 110 Amp/hour deep cycle from Sears. Information sez that after discharging for 20 hours, this battery will continue to provide 110 Amps. It doesn't say how long after 20 hours this will continue, but the generator is used during the day mainly because it is so loud it disturbs the neighbors. I don't like to do that at night especially when they have their windows open to have air to sleep at night.

We watched neighbors carry their food from their refrigerators and freezers to the trash after the power was off for 3 days. Frozen things don't last that long in heat like this either. The generator has paid for itself at least 3 times over in the food saved. Now the battery backup will run these things during the time we need the continuous power. I purchased the inverter/battery charger combination on ebay. \$200 to \$300 for something good and reliable. JHEMCO.com sells the linear air pumps and battery backups for them as well. One just needs to purchase a deep cycle battery locally to hook it up. It stays on, connected, in the fish room continuously. If the power goes off the Brine Shrimp continue to have air bubbling in and keeping them alive for feeding. Air powers most of my in-tank filters and those keep on bubbling as well.

If you are interested in an inverter/battery combination for supplemental non-interruptible power for your fish room, you will need to add up the wattage consumed by each one of the things you want to keep running. Power filters usually consume something like 5 to 20 watts. It gives the wattage consumption on the bottom of the filter. Fans and lights all have their wattage stamped or marked on them someplace, usually on the back next to the label. Add up the wattage you need and purchase an inverter with the output you need with some room to spare. If you don't want the extra expense, almost any good battery charger will work to keep a deep cycle marine battery charged. Don't forget to discharge it (use it to empty) at least every 3 months to keep it from having a charging memory.

There are several battery powered Bait Bucket air pumps available. I have 2 just for the chance the problem comes around again. One "D" cell makes these pumps run for 30 hours. They are available from Bass ProShops on line. Another great little gadget is the PENN-PLAX Silent*Air B11. It holds 2 "D" size batteries and plugs into a power outlet. It monitors the house power and if it goes off, the battery powered air pump turns on. It will deliver air to 3 or 4 outlets about 12 to 16 inches deep for 26 to 30 hours before the batteries need replacing. This is available at local pet stores and on line as well in several sites. (www.thatfishplace.com, etc.)

Planning ahead is all important. Once slapped in the face with having to carry \$\$'s of food to the trash for lack of refrigeration or no radio or TV to keep up on news and local information, one tends to wish for such things. If you don't have it when needed, it's difficult if not impossible to find it in the nick of time. In Florida and other parts of the southern US when hurricanes blow out the power lines - one is left without everything for weeks at a time. It teaches you to plan ahead or you suffer. Having batteries around all the time is a must. Flash lights and battery powered radios and or a TV come in very handy. There are rechargeable batteries and their chargers all over the country now (check out HarborFreight.com) DC to AC inverters and deep cycle batteries and battery chargers (120 and 220 Volts AC) of several different wattages are available.

The new lights using light emitting diodes (LEDs) flash lights consume very little power and really supply the light! These are very energy efficient and a good buy when one finds them or go looking before you need them!

Not enough can be said about being prepared. If I had to go out and purchase these things all at one time I could not afford it. TV, radio, several flash lights(LEDs) a stash of rechargeable batteries and a charger, a power inverter battery charger, deep cycle Marine battery(s), battery powered air pump(s),

OH! lap top computer so I can check my e-mail and GuppyLog, and don't forget a land wired telephone. Those portable house phones don't work when house power is off. You need fans and perhaps an electric heater or 2 unless you have gas to heat the house with, and don't forget the gasoline generator and the extension cords to connect everything to it.

All this adds up to some investment in money and requires someplace to store it (hope you will NEVER need it). But, beyond that, Plan Ahead! Add up the wattage you will need, bare minimum and wish list and prepare for it.

Caveat: DO NOT operate a generator in an enclosed area! like the garage or a back room! Carbon monoxide kills slowly and silently! It's also important that if you connect the generator to the 220 outlet in your home that you disconnect the mains from the outside power. If you have this connection installed by a qualified electrician they will build it in for you; otherwise, stick with extension cords and don't plug anything into the household circuit!

Moving On (Part Two)

by Ed Millinger

My fishroom is now complete and I'd like to make some observations and comments regarding the functionality of my setup. As I stated in the first article in the July/August Darter my intent was to simplify operations.

With regards to filtration I mentioned using corner and sponge filters exclusively. The obvious disadvantage to using these versus outside power filters is that they take up room inside your aquarium. This is space you could use to enhance the look of things or just give your fish more room to move. Cleaning these filters can also be disturbing to the fish as the filters have to be removed. From an appearance point of view it can be both a negative and a positive. Having to look at the filters as they do their job and accumulate dirt may not be pleasing to the eye but you sure know when they need cleaning! When I used outside power filters I sometimes didn't notice the diminished water flow as they became clogged.

Another negative with regards to the corner filters is they tend to float to the top. To change this I affixed slate to the bottom piece or just leaned a rock against it. On the positive side it sure is nice to have a linear pump. It really is powerful and quiet. The only maintenance is changing the filter twice a year. I purchased a spare so I can swap them out and clean the old one and have it ready in another six months.

I discovered that the polyfill I use in the corner filters is the same price it was several years ago when I last bought some. This is a great savings over the pre made filter sleeves.

One thing I don't miss is using heaters in each aquarium. I'm sure we have all suffered from heater malfunctions. My worst was losing two ten inch Geophagus Surinamensis. By heating the room though it gets awfully warm. After a ten or eleven hour work day I tend to have a strong urge to sleep after spending time in the eighty degree fishroom.

I was just a little optimistic over the time it would take to perform my water changes. I predicted I could finish in thirty minutes but it takes me more like seventy five. I had not considered the time involved in cleaning all the filters and scraping the glass.

I have also already expanded outside the fishroom. (What do they say about the best laid plans?) As I wrote in my first article I am keeping my Betta Macrostomas. They prefer a temperature in the mid seventies so I set up my 30 and 36 gallon tanks I bought from Ron Huck several years ago outside my fishroom. The temperature here is 75 degrees which is just right for the bettas. I will also keep my swordtails above the bettas.

Speaking of the swordtails I finally stopped by Klaus Bertich's house to pick them up. He was really nice to keep them as long as he did because of all the delays I faced in completing my fishroom. The eight swords Klaus took in April had turned into more than seventy by August. Klaus really knows his swords. Thanks again Klaus.

In completing the fishroom I found three things that I didn't have before that have really helped out. Number one was a remote control on/off switch that is sold for Christmas lights. I plug my sump pump into this device and I can go from tank to tank filling each one and then turn it off.

The second thing I bought was a rechargeable flashlight with a moonlight feature. I found this at the hardware store while shopping for a drill bit to drill the holes in my pvc pipe for the air outlets. Years ago I had heard that discus breeders turned on a moonlight at night. At the time I thought this was crazy but now with a windowless fishroom I decided to give it a try. I use the flashlight portion to place where I can harvest my newly hatched baby brine shrimp and before turning off the tank lights I switch it over to moonlight and plug it into the outlet. While the tank lights are on I recharge the flashlight.

The third thing I bought was a cushioned hydraulic seat with a storage plate underneath. This is marketed for work in a garage but I keep my dry foods on it and can push myself around the room while feeding the fish. This may sound a little crazy to some but I get up every day at three A.M. and it helps me avoid stumbling around too much.

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FISH
FOOD**

**JIM
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BAP Report

Steve Edie

Member	Species	Common	Pts	Total
Sept 2006				
Jack Berhorst	<i>Ancistrus</i> sp. "Albino Bristlenose"		10	140
Marlon Felman	<i>Archocentrus nigrofasciatus</i>	Convict Cichlid	5	5
Charles Harrison	<i>Aphyosemion australe</i> "Cap Esterias DNA 01" *	(bogus)	20	1401
Charles Harrison	<i>Chromaphyosemion riggenbachi</i> "Dibang" *		20	1421
Charles Harrison	<i>Dermogenys pusilla</i>		10	1431
Charles Harrison	<i>Scriptaphyosemion guignardi</i> *		20	1451
Charles Harrison	<i>Xiphophorus</i> sp. "Domestic Swordtail"	Twin-Bar Sword	1	1452
Mike Hellweg	<i>Gambusia</i> sp. "Baja California" *		10	2522
Mike Hellweg	<i>Hemigrammus caudovittatus</i>	Buenos Aires Tetra	15	2537
Cory Koch	<i>Cyrtocara moorii</i>	Blue Dolphin Cichlid	10	255
Cory Koch	<i>Enantiopus</i> sp. "Kilesa" **		30	285
Cory Koch	<i>Julidochromis transcriptus</i>		10	295
Cory Koch	<i>Neolamprologus multifasciatus</i>		10	305

Oct 2006

Charles Harrison	<i>Gymnogeophagus meridionalis</i> "El Norte"		10	1462
Gary McIlvaine	<i>Limia vittata</i>	Cuban Molly	5	161
Gary McIlvaine	<i>Neoheterandria elegans</i>	Tiger Livebearer	15	176

Rick Smith *Devario aequipinnatus* *

Giant Danio

5 40

* = 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)

HAP Report

Mike Hellweg

Greetings all,

Well, our HAP continues to roll right along. Welcome to new MASi member and new HAP participant Brad Riley!

Congratulations to Andy Walker, who earned both his Novice Aquatic Horticulturist Award and his General Aquatic Horticulturist Award.

And Charles Harrison is coming up fast on his Grand Master Award - look for either a meeting program on Aquatic Plants or a series of articles here in the Darter about Aquatic Plants. I'm sure our Editor would prefer the series of articles as he has been looking for plant articles lately.

That's it for now.

Keep 'em green!

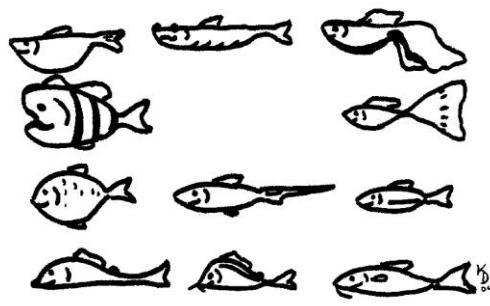
Member	Species	Common	Rep	Pts	Total
Sep/Oct '06					
Andy Walker	Cryptocoryne species willisii		V	15	70
Andy Walker	Cryptocoryne wendtii brown		V	15	70
Andy Walker	Hygrophila corymbosa corymbosa	Giant Hygro	V	5	70
Brad Riley	Ceratopteris thalicroides	Water Sprite	V	5	30
Brad Riley	Microsorum pteropus	Java Fern	V	10	30
Brad Riley	Echinodorus amazonicus	Amazon Sword	V	15	30
Charles Harrison	Hydrotriche hottoniaeflora	Water Figwort	V	5	470
Charles Harrison	Alternanthera reineckii	Red Hedge	V	15	470
Charles Harrison	Bacopa caroliniana	Common Bacopa	V	10	470
Charles Harrison	Rotala indica		V	15	470
Charles Harrison	Rotala sp. macrandra		V	15	470

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

 **We've got a place for you!**

Missouri Aquarium Society, Inc.

Come join us at a meeting, or contact our membership chair, Kathy Deutsch for more information
(314) 741-0474 fishfan@i1.net



The Duck Weed Conspiracy

by Gary McIlvaine

I have found the topic of Duck Weed to bring violent hateful reactions among aquarists. Many try in vain to rid their tanks of this plant. It is nearly indestructible and if you happen to miss one leaf within a couple weeks your tank can become re infested with this "nuisance" plant. I have it all over my arm when performing tank maintenance and find bits of it all over my floor when I am done cleaning my tanks. I have however made an observation in my fish room that I care to share with the group and perhaps break up the conspiracy against duck weed.

The first thing I want to admit is I have NEVER bought duck weed, and I know have an endless supply of this plant. I obtained a few leafs from my first plant purchase at the MASI auctions, yes I have my fellow aquarists to thank for my duck weed infestations. I also have my fellow MASI members to thank for another of my infestations and that is the African live bearing snails, This is one infestation I have tried to rid myself of to no avail. That being said I do have to admit by far my best looking tanks all have a thick layer of duckweed on top of them. I actually add duck weed to my fry tanks when raising fry. I have found it to help keep my water crystal clear and the dirtier the water the faster it spreads and corrects the situation. Perhaps our hatred as aquarists is misplaced against duck weed, I have found it very easy to thin out. I just simply scoop it out and throw it in the garbage, the action of thinning out the duck weed in my tanks only takes 30 seconds, mind you this is not getting rid of it. So why the hatred? It floats, and provides excellent cover for fry, as well as naturally filtering the water. So why does this plant create such hatred and the dread of all you plant enthusiasts? Is it because you really can't get rid of it?, or is it the thought of the duck weed sapping all the nutrients for the fancy plants?

Like many topics in the aquarium hobby I think our hatred of this valuable plant is misplaced, I can see the difference in my tanks, and many non-aquarist visitors can't believe how clean my tanks look. I also believe duck weed seems to aid my other plants. Maybe it's a coincidence, but it seems to help them as well. My fish seem to prosper as a result of the duck weed, so I ask instead of hating this plant, look at it for what's it worth!! Like many things in life it is better to look at the glass as being half full. I for one have no plans to forever rid my fish room of this valuable tool. I for one no longer look at Duck Weed as a nuisance, but rather a valuable tool in my fish keeping .

Member Classifieds

Charles Harrison (314) 894-9761, csharrison@inkmaker.net -

OTO Chlorine test kit, 4 ounces \$12.50 last for about 2 years, detects traces of Chlorine in tap/tank water, and other "Chemicals for the Fish hobby"

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The Computer Page

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MASI's official web page: www.missouriaquariumsociety.org

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The Dwarf Merry Widow *Phallichthys tico*

By Mike Hellweg

The Dwarf Merry Widow is an unassuming small sized livebearer that comes to us from Costa Rica. It is peaceful, gregarious, and colorful, though not gaudy. In short, it is a perfect candidate for small to mid-sized planted tanks.

I got my colony start about 5 years ago, and they have been doing extremely well for me ever since. I think I've probably passed out close to 200 fish to friends and via the Trader and online auctions. My original breeders have long since passed away, but their first generation juveniles are still doing very well at close to 5 years old.

In *Atlas of Livebearers of the World*, Wischnath says adult males reach about an inch in size, and adult females can sometimes reach an inch and three-quarters, but usually they remain a bit smaller. Actually, I don't think I can remember ever seeing a male over about three quarters of an inch. Both sexes are overall sort of a blue-gray color, darker on the back and lighter on the belly, with a dark blue to black dorsal outlined in bright blue-white. The male's gonopodium is long, reaching nearly all the way back to the caudal fin. Occasional older adult specimens of both sexes show a lemon yellow color on their flanks just behind the gill cover and below the lateral line.

I've maintained my colony in ten gallon tanks with a sponge filter, lots of plants like Java Moss and Java Fern and a covering of duckweed on the surface (not put there voluntarily – as most of you know it does what it wants!). The duckweed turned out to be something that made them comfortable, though, so I learned to live with it. They like to have cover over their heads, and when kept without any floating plants, I found they spent most of their time hiding. Only after the duckweed invaded their tank did they start spending most of their time out in the open. I should also mention that they are excellent jumpers and I've found more than one dried up on the floor over the years, in spite of having a tight fitting cover. I've even had one fish jump and hit me in the face while I was trying to catch other fish from their tank!

Their tank gets 50% water changes on a weekly basis. Water parameters appear to be unimportant, as I have kept them in both softer and harder water with a pH both above and below 7. They do seem to have a definite preference for warmer water. I see more fry in when their tank is in the upper 70's or low 80's. The few times I've had to move them to lower tanks in the fishroom and the temperatures have dropped a bit, they've responded by hiding and not reproducing.

The females don't drop many fry – less than 10 seems to be normal. A few times over the years there have been larger groups of newborns in the tank, but they could have been from drops of multiple females. They don't seem to be even aware of the fry. That could be due to their small mouths. Even newborn fry are probably too large for them to take, so they probably don't consider them food.

I feed them finely crushed flake, Hikari Micro Pellets, newly hatched brine shrimp, *Moina*, small *Daphnia* (*pulex*?), Grindal worms, Mikroworms, and other small foods. They are not aggressive feeders, and will often wait until I've moved on to other tanks before they start feeding. But once they are feeding, nothing seems to bother them!

One other interesting observation that I've made, and had confirmed by a few others, is an unexplained behavior in seemingly normal juvenile females – I've never seen it in males. This occurs only when they are about three-quarters of an inch long, and is not performed by any smaller or larger females. Perhaps it has something to do with reaching sexual maturity? Sometimes all of the juvenile females in the tank will do it, but usually it is only one or two.

The behavior is what in other fish I would call a “death spiral” where they quickly dart up into the water column, spinning in wide arcs with their fins clamped tight to their body. This is repeated several times, and then they quiet down. The first time I saw it, I thought something was seriously wrong in the tank. I tested the water (it tested fine), did a large water change, cleaned the filter, and crossed my fingers. Nothing more for a few more days, then several more of the juvenile females were doing it! I did another water change, and did not see the behavior again for a while. Afterwards, everything was normal. The expected deaths never occurred. The females grew on and began dropping fry normally.

Then about six months later I noticed the same thing with different young females. I caught one of them and examined her under a microscope. No sign of parasites or anything else. I isolated her and watched her closely. No repeat of the behavior. After a month, I moved her back to the colony. No problems. I've now seen this behavior so often over so many generations, and had it reported to me from others who even have fish from a different source that while not 100% positive, I'm pretty sure it has nothing to do with disease, but is rather some sort of behavioral display.

The Dwarf Merry Widow is not a showy fish, but its unique behavior and interesting coloration make it worthy of any livebearer enthusiast's fishroom. And I hope more of you will keep them and report what you discover about their interesting behavior.

For more information about these and other livebearers, consider joining the American Livebearer Association. You can get more information, and even join online, at www.livebearers.org or by writing to:

American Livebearer Association Timothy J. Brady Membership Chairman 5 Zerbe Street
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Club Hopping

Steve Edie

Mar 16-18, 2007 -- Hartford, CT: Northeast Aquarium Council – Annual Convention

July 2007 – Sacramento, CA: American Cichlid Association – Annual Show

Apr 11-13, 2008 -- Hartford, CT: Northeast Aquarium Council – Annual Convention

Back to Bamako

By Lawrence Kent

Last month I went back to Bamako, Mali, West Africa. I did some accidental collecting and brought back with me *Dientamoeba fragilis*, *Endolimax nana*, and *Entamoeba hartmanni*. No, these are not new species of killifish. They are amoebas, protozoan parasites now living in my intestines. I must have picked them up eating some dirty local food. The tinidazole and doxycycline that I'm taking should've killed them by now, but it's been four weeks and I still have the diarrhea. The tropical medicine specialist at Washington University told me he hadn't seen *Dientamoeba fragilis* in ten years. If it is rare and multiplying, I thought to myself, can I get a lot of BAP points for it?

I went back to Mali for work, to train government regulators to inspect trials of genetically-modified cotton at a research station in Sikasso. Regulators came from all over the country to participate. I asked one of them where he drove in from. He said Timbuktu. Really? "Yes, it took us two days" he said.

I brought my net, because last year I also went to Mali for work and was able to find a lot of interesting fish through the local fisherman along the Niger River. I was most interested in the cichlids (mainly *Hemichromis* species) but also found bichirs, electric catfish, elephantnoses, and even an Aba-Aba (*Gymnarchus niloticus*). This year, my work would be taking me to a different part of the country and I hoped I could find some new waterways and new fish.

It didn't work out that way. The training kept us busy from dawn until dusk and there was no time for fish. But on the road back from Sikasso to Bamako I convinced my African colleagues to agree to a short stop at a promising spot along a tributary of the Bagoe River. I rushed down to the river with my copy of Anton Lamboj's book on West African cichlids and a net and started dipping into the weeds and between the fallen branches. Nothing. I kept dipping. Then I slipped on the clayey banks and fell into the river. Man it was deep; I couldn't touch bottom. And the banks were so slippery I couldn't climb out. I considered calling to my African colleagues for help but I was too embarrassed. Finally I found a root to grab onto and pulled myself out. My wallet, passport, and clothes were soaked and the rest of the five-hour ride back to Bamako was soggy and full of laughs.

Once back in Bamako, I immediately went down to the Niger to look for local fishermen. I found a couple of boys with a dugout canoe and convinced them to take me out between the reeds and floating weeds to fish. They used a big cast net and caught tilapia and catfish, but nothing that interesting. The mesh was too big. The next morning I went to a different spot on the river, still in the city, to find fishermen. I wanted to find ones with finer mesh fish traps. After some discussion, one of the fishermen agreed to take me out to look in his traps. I told him my name, and he said: "ah, Kent, je te connais; tu étais ici l'année dernière" (I know you; you were here last year). Yes it was Brahim, the same guy who paddled me around 13 months ago. I hadn't recognized him.

We went out in his canoe among the reeds to look for his traps, which were anchored to the muddy river bottom using rocks, about 8 feet down. Brahim carefully manipulated the canoe between the floating weeds trying to remember the locations of his traps. The rains were good this year, and the current was strong. Once we reached the right spots, Brahim would flip himself out of the canoe and into

the muddy water, dive down and pull up the traps. Then we'd go through the catch: beautiful red-finned Jewel Cichlids (both *Hemichromis elongatus* and *H. guttatus*), Giraffe-nosed Catfish (*Auchenoglanis occidentalis*), Schilbe Catfish (*Schilbe uranoscopus*?), *Chromidotilapia guntheri*, and various tilapia (hard to identify, maybe *Tilapia dagerti*). Brahim also caught a green Band Puffer (*Tetraodon lineatus*), which he shook and stressed until it inflated itself into a baseball-sized sphere.

I returned to my hotel room with a bucket of about twenty fish and another bucket of "clean" river water. After 24 hours to allow some emptying of their digestive tracts, my six favorite fish were packed into three small breathable bags. The Giraffe-Nosed Catfish and the two *C. guntheri* made it back to Kirkwood alive and they are now thriving in my living room. The *Entamoebae* also arrived home safely and are still thriving in my intestines. I gotta go.

Spawning *Fp. avichang*

By Charles H Harrison, Ph D

Fundulopanchax avichang, F.Malumbres & R.Castelo 2001

We found this little fish at the 2002 Am. Killifish Association National Convention in Colorado. There were bags for sale in the Fish Sale room and a few made their way into the auction. We picked up 2 pair. There was no mention of them in any of the literature. A Spanish physician Francisco Malumbres and a party of collectors found the fish in Equatorial Guinea in 2000. Their full name includes the location where they were found as *Fundulopanchax avichang* GEML 00/16 Nguba II together with the date taken. Other attempts to collect and keep alive specimens for breeding and distribution have not been successful to date. *Avichang* is a native word meaning "Small" in English.

The radiant and iridescent chrome yellow below a bright blue stripe extending from the gill through the caudal peduncle and into the tail first caught my eye even as a frightened washed out fish in a bag. I hadn't seen it before but it reminded me of the *Fp. amieti*. The color patterns are close but the brightness of the yellow stripe down the side told me it wasn't just some color variation of *amieti*. This was a new little jewel and since I planned to bring something home from the convention, I thought this one might just be one of them. Sue, my partner, really liked the fish and that is always a plus. She helps to keep the interest up when the fish is one she likes to see around and I depend on her to help out from time to time with water changes and feeding.

There were six pair on the auction and we got two of them for \$40 each, a little high but these guys were almost glowing in their bags, so have them we did, along with a couple of SA annuals. I have never seen this fish before and the New and Rare fish are the reason for me to stay for the auction.

Once home the *avichang* jewels got more interesting – no one knew anything about them! Not their egg placement, their incubation time or type, where they were from, water temperature – nothing! After looking through the available literature, I asked the killietalk e-mail list. Mickelson came back with a name, F. Malumbres in Spain. Brian Perkins sent me on the right trail. So I set out to get in touch with F Malumbres and to trial and error to get eggs and young from these jewels.

The fish colors up dramatically early in life and maintains their striking markings well into maturity. The lateral stripes of red begin as red spots in the face and coalesce mid body to form a broad bar into the caudal. Interlaced with the red is iridescent blue in the face, which coalesces into a second band into the caudal. Below this blue band, the underside of the fish and the lower unpaired fins are bright red orange. Both males and females reach a total length of about 1.5 inch. The fish coloration is variable individual to individual, but all the more striking in a group of these fishes.

And, speaking of groups of this fish, these are the most aggressive Killies I have found in 30 years of Killie keeping. The females as well as the males are often guilty of killing off their tank mates. Breeding setups need to take this into account. Lots of hiding mops, both bottom and top floating are recommended! Their aggression should not be taken lightly. There have been few people who have been able to maintain this fish and this is due mostly to their aggression. Two pairs of *Fp. avichang* in a 10-gallon tank without sufficient hiding places may have only one living fish swimming in it when left overnight.

Another difficulty of the fish is the egg development. The eggs require 2 months of dry period. I have kept the eggs in water for 4 months without seeing any development of the embryo. Eggs left behind and forgotten for 4 months in a vacant 10 gallon have turned into fish though so I would guess the fish are not completely annuals in the wild. After 4 months of dry there is a major decrease in the viability of the eggs to the point of less than 3 or 4% of the eggs hatching. I always re-dry the peat in the dish after wetting a first time. I have had several eggs rest for another 3 weeks and then hatch on a second wetting. When wife and I picked up the fish at the AKA Convention, there was no information about them in the literature. Only experimentation found the incubation time. I have also noted the temperature the eggs are stored at controls the gender ratio. Storage at temperatures below 72° F results in a preponderance of males. Raising the storage temperature to 76 results in more females than males. This observation comes from hatching a dozen bunches of eggs.

My best hatching method is to store the eggs on the surface of moist peat moss in a glass dish like a Petri Dish. Other methods like storage in a plastic bag of peat have not been near so successful. The dish method allows one to observe the egg development over the storage time and one can remove any dead eggs or wet them when they seem to be looking back at you. This method requires the eggs be picked from mops from the breeding tank and place them on the Peat. Again this allows the removal any white or dead eggs and prevents fungus from killing viable eggs over the development time of 60 to 70 days. I wet the eggs by flooding the dish of eggs and peat carefully so as not to disturb the peat matt and allow the eggs to hatch. The new fry take newly hatched BBS and micro worms as soon as they are free swimming. They soon graduate to grindal worms and some frozen foods. I have never fed flake or dry foods but they do take fruit flies so they probably could be trained.

I have had excellent results keeping this fish in St. Louis tap water dechlorinated with Thiosulfate. I have bread a pair in a 5 gallon tank with 4 to 6 -100 strand breeding mops, half of the mops floating. I generally use a corner sponge filter. Our water here remains at a pH of about 7.5 to 8.0, a total dissolved solids of 250 to 350 ppm and a total Calcium hardness of about 125 to 200 ppm. The tank temperature varies 68 - 73 °F in my fish room. I change at least 80% of the water in all my tanks once every 7 to 10 days. I have heard others say they only keep them in RO or rain water because they don't produce eggs for them if they don't. I have not found this to be true, St Louis tap water is just fine.

But, change as much water as often as you can. ><{ { { ÷ »

What's The Point(s)?

The point is our society of fish lovers needs your help to remain vibrant. Volunteer to help, write for the Darter, show up for a meeting, help at the next auction. The following is an account of everyone who makes the Missouri Aquarium Society tick. Your points tabulator, Ed Millinger.

Name	Service Points	Bowl Show Points	Name	Service Points	Bowl Show Points
Ray Alantara	1		Ron Huck	31	
Don Atkinson	11		Jerry Jost	53	4
Mary Bates	2		Lawerence Kent	9	1
Jack Berhorst	30		Cory Koch	20	
Michele Berhorst	18		Gary Lange	48	
Klaus Bertich	44	27	Micky Lee	2	
Earl Biffle	1		Gary Mcilvane	36	
Roy Brandhorst	60	5	Terry McMahon	2	
Scott Brandt	6		Paul Miles	2	
Diane Brown	67		Jim Miller	7	
Bob Buckles	31		Ed Millinger	39	9
Scott Bush	13		Phillip Newell	9	
Tammy Clemente	13		Bob Newton	4	
Kathy Daly	3		Brad Riley	5	
Kathy Deutsch	43		Dave Rush	26	
Steve Deutsch	57		Herb Samples	2	
Steve Edie	86		Tom Schnur	1	
Jim Fairchild	1		Michael Silveus	1	
Marie Fairchild	1		Rick Smith	6	14
Marlon Felman	25		Al Storms	2	
Thomas Felman	6		Mark Theby	24	
Maureen Green	6		Rick Tinklenberg	17	
Steve Green	4		Pat Tosie	52	
Charles Harrison	65		Greg Van Asch	2	
Sue Harrison	18		John Van Asch	44	
Dave Hassler	5		Andy Walker	7	
Jack Heller	16		Vickie Walker	1	
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CONTEST Extended to January due to a need for some entries!

1. All artwork must be the ORIGINAL WORK of the entrant.
2. Maximum 4 colors including black
3. Must be aquarium or fish-related subject
4. The design is for the FRONT or BACK of a T-shirt only, no designs for sleeves, both sides, etc. will be considered.
5. No photos allowed
6. Each entrant may submit as many entries as they like.
7. The club will vote on the most popular design. The Executive Council will take this vote under advisement when choosing the final design.
8. The winner gets the first T-shirt, plus a copy of the final design suitable for framing. This will also be used as a cover for the Darter.
9. Minimum allowed design size is 8" x 8"; maximum allowed design size is 12" x 12".

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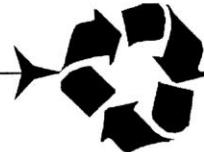
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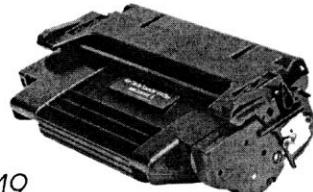
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