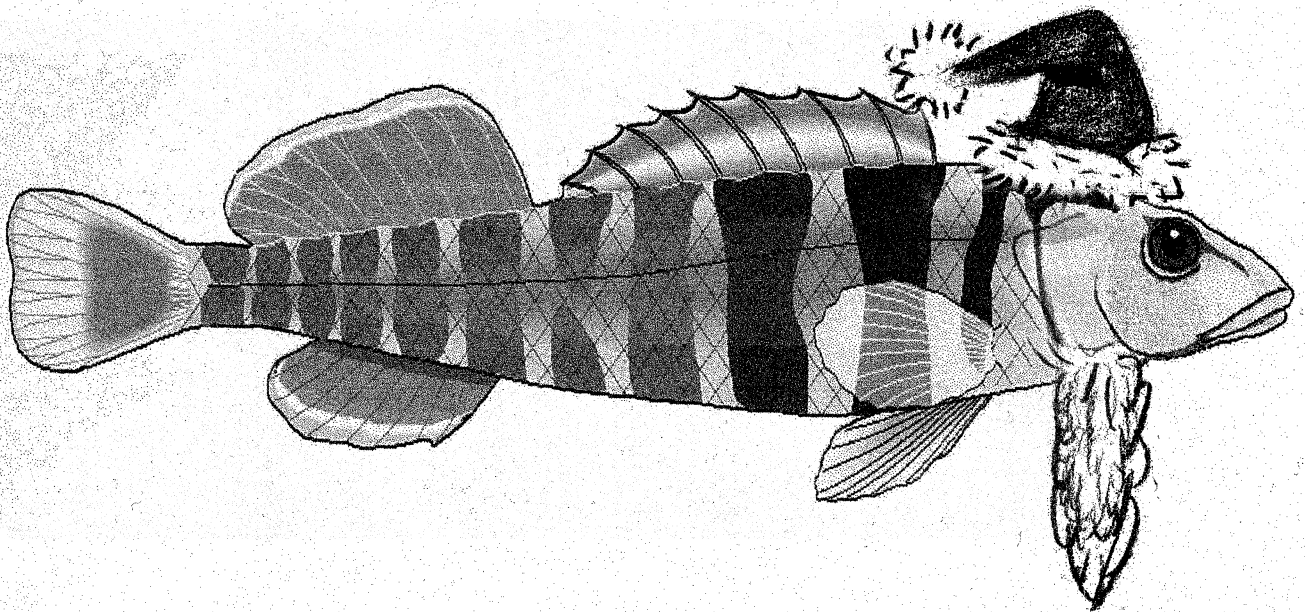


The Darter

November - December 2004



MISSOURI AQUARIUM SOCIETY, INC.

St. Louis, Missouri

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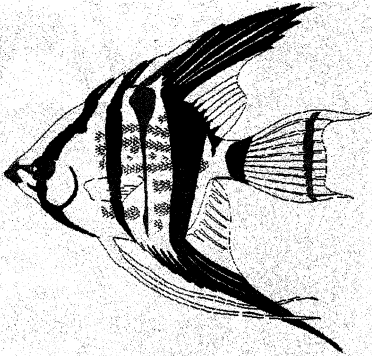
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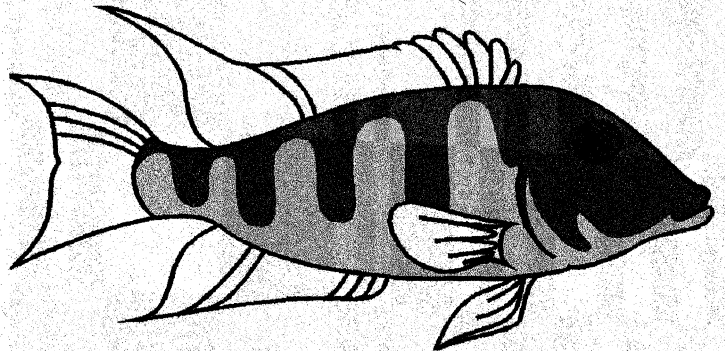
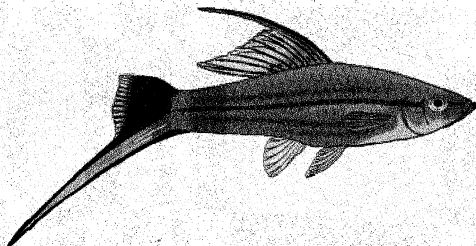
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MASI's official web page: www.missouriaquariumsociety.org

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Places to Be Things to See

Meeting Location - Please note that the general meetings are now held in the main church building - the one you pass on the left on the way back to where we used to meet.

SUNDAY, November 21, 2004

**MASI Auction, All Species @ Stratford Inn in Fenton
Viewing at 11:00, Auction at noon**

SATURDAY, December 4, 2004

Executive Council, 7:30 PM @ the home of Klaus Bertich

THURSDAY, December 16, 2004

**General Meeting, 7:30 PM @ Dorsett Village Baptist Church
MASI Christmas Party**

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FRIDAY April 29 through SUNDAY May 1, 2005

MASI ANNUAL SHOW at the Stratford Inn

SATURDAY, June 18, 2004 (SATURDAY June 25 in case of rain)

MASI Picnic @ Jim and Brenda Thale's

Presidential Preamble

By Mike Hellweg

Hello all! By the time you read this, it will be late fall and the Holidays will be fast approaching. Thanksgiving will only be a few weeks away, and Christmas shopping isn't far behind – already. Where did the year go? Hopefully, you've finished all of your outdoor work and are ready for a long winter. All the ponds are mucked out, the filters are cleaned, the water lines purged, and the fish are nestled in beginning their winter fast. While it's a great time to start planning and even digging a new pond, at least until the ground freezes, it's actually time to move indoors. Now is the time to focus on your indoor fish.

Here are just a few ideas. Maybe set up the planted tank that you've been putting off for years. There is a lot of information, and even a large variety of plants and cuttings, available from other club members if you just ask. Maybe start getting your fish ready for the Annual Show – it's only a few months away. Write that article you've been thinking about – share your experiences with the club.

Set up a tank in your child's classroom or even their bedroom, get the kids interested in something besides video games! Let them pick the decorations, even if they're hideous to you (Spongebob Squarepants comes to mind!). Let them make the decisions about it. Give them guidance and help them care for it, but let them be the ones who actually make the decisions. You might be surprised at how good they are at it if it's their project. At the very worst, it will allow you to have another tank without feeling too guilty about it!

Maybe it's time to try your hand at breeding something if you've never done it before, or maybe trying your hand at building a small breeding setup. You don't need a fishroom to be successful. Too many people jump in with both feet then get burned out quickly. Start small. Many of the most successful breeders I've met only have a few tanks, and only work with a few fish at a time. One of the best breeders I've ever known did most of his fish keeping in a small closet! A simple, compact breeding rack can be built that will hold up to a dozen 10 gallon tanks in less than a 4' x 2' space in a spare room or in a corner of the basement. Anyone who can use a hand saw and a drill can put one together in an afternoon. And with some of the super heavy-duty racks available at home centers now, you don't even have to build a rack – you can buy one for less than a hundred bucks!

It's also time to start thinking about Christmas gifts. I'm often surprised to learn it, but there are still many hobbyists changing water with a siphon and a bucket! One of the best labor-saving products that's ever been invented for aquarists is the Python - you can do a water change and clean the tank at the same time! And no lugging buckets ever again! Maybe you can put one on your Christmas list if you don't have one – or give one to a fellow hobbyist who doesn't have one yet!

With all of the excitement of the holidays, don't forget about our Fall Auction, coming up November 21st. As always, it will be at the Stratford Inn. And finally, don't forget about the Annual Christmas Party at our December meeting. It's a time for family and friends. We don't have a "fishy" program, just a short business meeting, then a party – with a visitor from the North Pole for the kids! We also do a gift exchange, and ask everyone to bring a little something, either wrapped or unwrapped, fishy or not, so that Santa has enough gifts to make sure everyone gets something. And finally, don't forget the less fortunate. We'll also have our annual canned food drive at that meeting. Bring some canned goods and we'll donate them to a food pantry for the holidays.

Merry Christmas! I hope you all have a safe and enjoyable Holiday Season, and a Happy New Year!

...and for now, 'nuff said

Show Report

By Gary Lange

Our annual spring show for 2005 will be the April 29th, 30th, May 1st weekend. We have already confirmed some of the speakers and we're going back to make sure that the others are still available. Many of them you'll know but some that may be new to you. For our grand finale at the Saturday evening banquet we have Charley Grimes "tag" teaming with the Canadian Spencer Jack as they each give their opinions about raising fish. Spencer is well known in the cichlid world for his talks and his dry wit. Charley Grimes, if you haven't heard him before is a master of, er, he's a master of, shall we say "alternative fish keeping." Although we don't have a title as of yet, think "Odd Couple" and you'll start to get the picture. I've had a few complaints about using Charley as a speaker for the banquet and as in the past I need to issue a warning. Please don't eat or drink while he's speaking, just to be polite to your neighbors. Making your friend laugh so hard that soda came out his nose was funny when you were younger but it doesn't bode well, even in the relaxed standards of a fish club! If you've had trouble staying in your chair then I suggest that you sit on the floor during their talk. Spencer will also give a talk on his recent collecting trip to Bolivia. I don't think I've ever heard anyone speaking on collecting in Bolivia before so I expect it will be very interesting. Spencer is also a pretty good photographer so I expect that you'll be seeing some pretty cool pictures. Start getting your fish ready for the show and make sure you mark the dates on the calendar!

Super Bowl 2004. This show was canceled for two reasons. First, it was largely due to a lack of entries in our 2003 show. If it's too much trouble for our members to bring a few fish then it's too much to expect your show chair to spend so much time and effort getting something together that garners so little participation. Those of you that did participate, thank you and I hope that you'll do so in the future if we ever get this going again. The second reason is because none of you volunteered for Assistant Show Chairman. Many years ago, when we had a lot of participation, the Assistant set up the Super Bowl. It helped get them ready for eventually taking over as show chairman. As much as I enjoy the annual show I will only be doing it through the 2005 spring show. I really wanted someone to step forward to volunteer so that they could take over in the next year and have a feeling for the things that needed to be done. The spring show is rapidly approaching but it's still not too late to volunteer for this position.

A Fish Out Of Water: The Mudskipper

by John Todaro, BAS

reprinted from Nov/Dec '02 *Aquatica* of the Brooklyn Aquarium Society

The mudskipper, *Periophthalmus barbarus*, didn't seem to know what it wants to be. It looks like it wanted to be a frog but changed its mind half way through its development. It spends most of its time sitting out of the water on flat rocks or the muddy tidal flats when the tide goes out. The mudskipper ranges from East Africa to Australia.

These remarkable fish have adapted to a highly individual biotope, muddy tidal flats where very little water is left at low tide.

Mudskippers have strong pectoral fins, which tend to resemble short forelegs; the fish uses them to "walk" over land with amazing nimbleness. Mudskippers are not very good swimmers and can move faster on land than they can swim in the water.

In the wild their food requirements consist of flying insects, worms and any small fish they can catch. It's highly recommended that these fish be kept in a species tank. If kept with other fish they'll make a meal out of any that fit in their mouths.

In the aquarium mudskippers make interesting pets but are not the easiest fish to keep. For one thing they live in brackish water, therefore the aquarium water should contain some sea salt, about a half-teaspoon per gallon. Also they spend most of their time out of water so you don't need more than a few inches of water. Last but not least the males can be competitive so it might be wise to keep one male with a couple of females. Males tend to be more colorful than the females.

The perfect tank would be a long 15 or 20-gallon tank, or a special made tank at least 24 inches long and 10 to 12 inches high and 12 inches deep.

Use fine sand, as regular aquarium gravel is sharp and can injure their soft underbelly. Slope the sand up out of the water so they'll have a damp sandy flat place to sit. Add a couple of smooth flat stones for them to climb on or hide behind.

A tight fitting glass cover is a must, not so much to keep them from jumping out, but to keep them moist, warm and draft free. The water temperature should be warm, between 78° and 82° would be suitable.

Feed them live foods such as earthworms, tubifex, meal or blood worms. Crickets should also keep them happy.

From time to time you'll find Mudskippers in better aquarium stores or at one of our auctions.

Editor's Notes

Steve Deutsch

This marks the end of my first year as your editor. The Darter would not be possible without our printer, Charles Harrison; our postman, Jim Miller; Steve Edie, our exchange editor, and our authors, you. Thank-you to everyone who has helped this year. I have enjoyed being your editor, and hopefully I am getting the hang of this.

This issue we have articles by Ed Millinger and Diane Brown, a letter from Mike Hellweg, exchange articles from John Todaro (BAS), Delores Scher (Greater Detroit AS), Laura Straub (Jersey Shore AS), and Peter Shepard (Greater Cincinnati AS), and the membership roster. Including the letter, that makes four items from MASI and four from exchanges. Steve keeps finding interesting articles to fill The Darter when we don't.

We have the Baensch 4 Atlas for the publication award, to be drawn at the Christmas Party. Authors eligible for the drawing are Terry Atherton, Klaus Bertich, Diane Brown, Kathy Deutsch (looks like I can't be the one to pull the ticket), Maureen Green, Charles Harrison, Jack Heller, Mike Hellweg, Gary Lange, and Ed Millinger. I will add up the points and have tickets for drawing at the party. It's safe to say Mike Hellweg and Ed Millinger are our two most prolific authors, but everyone who entered anything has a chance. It's great to have such a diversity of authors, but it looks like we still need to hear from the second half of the alphabet - send an article now and be the first to be entered in next year's drawing!

As always, your suggestions and articles are welcome. In addition to articles, other original content such as cover art, puzzles, and cartoons are also welcome.

The Computer Page

Steve Deutsch

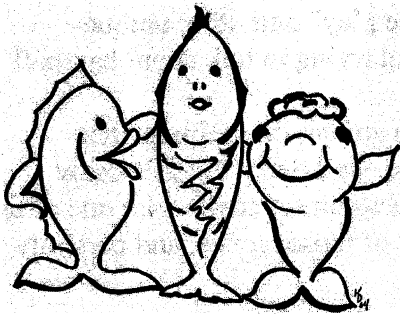
MASI's official web page: www.missouriaquariumsociety.org

This is a work in progress; I need help from the members. Addresses are only printed with permission of the owner. This is the list I received at the start of my service as your editor. If your address is not printed and you would like it to be, please email me at fishfan@i1.net. If you would like yours removed, or if it needs correction, also please email me. Several of these do not match club records, but I don't know if that is because the address is out of date, or because you have more than one address.

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Membership



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, fishfan@i1.net, or 9 Old Jamestown Ct. Florissant MO 63034

A Letter to the Editor:

Why be a member of MASI – or – What’s in it for me?

Along with other clubs and volunteer organizations from Boy Scouts to Bowling leagues, we've all heard the whining and complaining for several years about the lack of growth in membership and how more folks are spending more time online or watching TV than working with their fish. In addition, too many people have too many things to do and not enough time in the week to get them all done. And we want them to attend meetings and be active in the club, too? Why? What will they get out of it? What will the club gain by their becoming members, even if they aren't too active right now? Finally, is there a benefit to the club of having members in name only?

First of all, why do we want members who won't attend meetings or be active in the club? Well, maybe I'm thinking a bit selfishly here, but anything we can do to grow the club, increase the numbers of hobbyists and help them to succeed in the hobby WILL affect us all - maybe not in the short term, but in the long term. Hobbyists who take time to read publications like the Darter and the major hobby magazines, and even things on the web, are more likely to stick with the hobby and be successful. More successful hobbyists mean more money spent in the hobby which means more retailers, more manufacturers making more new products, more imports, more fish - and long-term, more members who ARE active! I know it is moving by "baby steps" and most people want a giant leap, but that isn't practical, especially in today's modern 24/7/365 world.

For those who ask "What's in it for me?" or "Why should I join MASI?" I've thought a lot about it and have listed a few things that popped into my head below. This is a question that we on the Council have talked about quite a bit over the last 10 years or so. Everyone can name at least a few of the benefits of being an active member - if you can't think of any benefits beyond getting the Darter, then you haven't really thought about it! What makes us become ACTIVE members? Why do we have fun, and sort of become a "clique"? Why do some new members quickly move into the "in crowd" and other new members just sort of "fade away"? I think it has something with how the new member views themselves and the club. I also think it has to do with whether or not they participate or just sit and watch.

People who just sit there, don't smile, don't react or talk when others approach them often complain that everyone ignores them. I've often reacted defensively to that, saying things like "we're not a clique" or "we're all friendly people". But recently, after years of pondering the subject, I've had a change of thinking. Maybe it's not the active members snubbing them – just maybe it's them automatically assuming that the members are "super knowledgeable fish snobs" – I've heard that many times. We who are active members should remain sensitive to new members and be open to their questions. But you new members also have to meet us halfway! Participate. Ask questions.

I've also heard that we throw Latin names and pseudo-scientific terms around to make ourselves sound smart. After thinking about it for many years, I've realized that every hobby or activity has it's own terminology, and to participate in that hobby or activity and communicate with others who also participate in that hobby or activity, we all have to learn those terms. Imagine trying to talk about a baseball game without using "ball", "strike", "bunt", "sacrifice", "squeeze play" and other unique baseball terms. Imagine not understanding the basic rules of the game and trying to talk about baseball with someone else.

Unfortunately, Latin names and pseudo-scientific terminology are among those things that Aquarists and even Horticulturists have to learn to understand. Otherwise, we often wouldn't know what animals or plants we are talking about. Not every fish or plant has a common name. Not one of us who are ACTIVE members came into the club knowing all or even many of those names, and certainly

not how to pronounce them! Many of us still don't! We learned by listening, asking questions, and getting involved! And all of us, even the most "expert" among us, don't know everything! Never be afraid to ask questions! I may know a lot about Tetras and Barbs, but not a thing about M'buna - I've never kept M'buna! I just got a group of one of the smaller species, and I've had to seek out someone who knows about them to help me out. I had to ask questions just like any other beginner.

Another thing we learned is that even some of the most ACTIVE members only have one or two tanks - not huge fishrooms! There are some folks with huge fishrooms who aren't even members of the club! And we all still make mistakes, including some pretty dumb ones. And all of us have algae and dirty filters in our tanks and don't do water changes as often as we should - all of us! What makes us different is that those of us who regularly attend meetings and events also understand that there is still much to learn, even for those of us who measure our time in the hobby in decades! You can even learn from listening to someone talking about something that you might have no interest in at all - or so you think! Those kinds of talks are often the best! One of the best programs I've ever heard was one on Fish Nutrition. I didn't think it would be even remotely interesting, but I went anyway, just to see what it was about. Before I realized it, the speaker had finished and I had learned quite a few things that I still use to this day.

Here are just some things I've gotten from ACTIVE membership in MASI, in no certain order (except for the first two, which I believe are the most important):
Friendship; fellowship; exchanging fish and plants; getting ideas; seeing other people's fish tanks/rooms; finding bargains and deals; finding fish and plants I couldn't get anywhere else, even on the Web; finding old books/magazines packed with information; finding out about local shops (sadly, more in the past than now); getting to know shop owners (also more in the past than now, but still possible); used tank deals; used equipment deals; learning about fish; being able to ask for help from my fishy friends when I need to do a large fishy project like designing or building a stand, a system, or a fishroom; moving - extra fishy hands can always help here; digging a pond; being able to ask questions about fish and having someone who can answer them right there, then being able to ask follow-up questions; having people around who can talk about the article I just read in my favorite fishy magazine because they also just read it; being able to talk about fish without having everyone look at me like I'm talking about eating babies or something like that; having someone to share the excitement of finding a new species or even the excitement of breeding a species for the first time (or the hundredth!); BAP; HAP; the fish raising contest; raffles; auctions; mini-auctions; the library; video rentals - did you even know we have those?; monthly bowl shows; the annual show; nationally known speakers and being able to ask them questions directly - even have dinner with them; fish or aquarium related programs; the Darter and the knowledge and experience it contains; free samples of new products; learning about new products from other members who have used them which can save a ton of money; learning other members' tips and tricks - I still use things everyday I learned from talking to Peggy, Charlotte, Gary, Reet, Ralph, and others when I first joined the club - you'll never get things like that just from the Darter or online; even little things like attendance prizes; and many other things.

In essence, if you believe that all you get by being a member of MASI is a subscription to the Darter, then you really are missing the point! However, in order to take advantage of most of these things, YOU have to be ACTIVE! Don't just sit and watch! Get up, ask questions, smile, laugh, and have fun! And don't forget, even the "experts" have dirty tanks and algae at home! The "big secret" is that we clean them before people come over! It's YOUR club! Get involved!

Mike Hellweg

BAP Report

Steve Edie

Member	Species	Common	Pts	Total
Sept 2004				
Steve Edie	<i>Channa orientalis</i> *	Dwarf Snakehead	15	110
Steve Edie	<i>Hyphessobrycon herbertaxelrodi</i>	Black Neon	15	125
Mike Hellweg	<i>Hypsophrys nicaraguensis</i>	Nicaragua Cichlid	15	1767
Mike Hellweg	<i>Oryzias melastigma</i> *	Spotted Rice Fish	10	1782
Oct 2004				
Mike Hellweg	<i>Ladigesia roloffii</i> *	Jelly Bean Tetra	15	1802
Mike Hellweg	<i>Steatocranus tinanti</i>		15	1817
Ed Millinger	<i>Xiphophorus helleri</i>	Orange Twin Bar Swordtail	1	435
Patrick Tosie	<i>Cichlasoma spilurum</i> (1)		10	155
Patrick Tosie	<i>Haplochromis</i> "Flameback"	Flameback Cichlid	10	165
John Van Asch	<i>Thorichthys meeki</i>	Firemouth	10	250

* = First MASI spawn (5 point bonus)

(1) *Cichlasoma spilurum* is the current nomenclature for *Archocentrus cutteri*

Celebrity Fishroom Tour

By Ed Millinger

Our recent fishroom tours reminded me of a celebrity tour a friend of mine took recently. Following are some of the highlights. This was a coast to coast tour beginning in the east.

The first stop was a visit to Martha Stewart. She had several tanks of pink and striped convicts displayed in an exquisite Central American motif. Next was a stop at Trump Towers and a visit to the Donald. You're immediately taken by a thousand gallon aquarium full of silver dollars.

My friend next went to Michael Moore's home and upon entering heard a stereo blasting Nellie's "It's getting hot in here." Indeed he said the temperature in his display tank was fahrenheit 91.1 It was full of false rummy nose and lyretail swords.

It was off to Hollywood where Merly Streep displayed an aquarium full of oscars. She directed the tour to the Hollywood Aquarium club which had a mention of its elite members and the fish they keep or have kept in the past. Among those listed were Erroll Flynn who played Robin Hood and was fond of Archer Fish. Jason, of Friday the 13th movie fame liked hatchet fish. Jimmy Stewart of "It's A Wonderful Life" was known to have an affinity for angelfish. Mickey Rooney liked Dwarf Gouramis, Red Skelton drew pictures of clown loaches and it was said of Judy Garland that she couldn't get over Rainbows.

In the sports field Pete Rose welcomed everyone into a fishroom full of Bettas. Astronaut Neil Armstrong used old space helmets as bowls for his favorite fish - yellow tangs.

The last stop on the tour was a visit to the office of Dr. Jack Kevorkian, who had aquariums full of croaking gouramis.

HAP Report

Mike Hellweg

Hello all,

September was another great month for the HAP! We had several rare species up for auction again. If you're missing the meetings, you're missing a great chance to get some hard-to-find plants at great prices.

Jerry Jost brought in several entries, and has now reached the next level - Advanced Aquatic Horticulturist - in the HAP! And he's done it all in just a few months!

Congratulations Jerry!

...keep 'em green!

Member	Species	Common	Rep	Pts	Total
September '04					
Ed Millinger	Hygrophila corymbosa angustifolia	Willow Leaf Hygro	V	5	300
John Van Asch	Myriophyllum aquaticum	Parrot's Feather	V	5	480
Jerry Jost	Ceratopteris pteroides	Spongeleaf Water Sprite	V	5	210
Jerry Jost	Echinodoras cordifolius	Marble Queen	V	15	210
Jerry Jost	Eichhornia azurea	Peacock Hyacinth	V	15	210
Jerry Jost	Glossastigma elatinoides		V	15	210
Jerry Jost	Hygrophila polysperma	Tropic Sunset	V	5	210
Jerry Jost	Lemna sp.		V	5	210
Jerry Jost	Limnobium spongia	Frogbit	V	5	210
Jerry Jost	Ludwigia sp repens x arcuata	Narrow Leaf Ludwigia	V	10	210
Jerry Jost	Nymphaea lotus	Red Tiger Lotus	V	20	210
Jerry Jost	Potamogeton maackianus	Sen-nih-mo	V	10	210
Jerry Jost	Rotala indica		V	15	210
Jerry Jost	Shinnersia rivularis	Mexican Oak Leaf	V	10	210
Jerry Jost	Vallisneria gracillis	Crystal Val	V	5	210

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

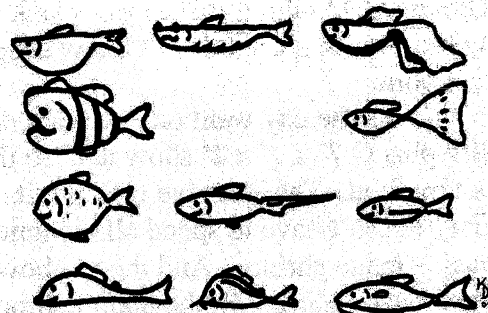


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MASI Fishroom Tours September 2004

By Diane Brown

We started out at Klaus Bertich's fishroom. There's one large planted display tank with beautiful swordtails in the furnished room before you enter the main basement fishroom. In the main fishroom he keeps many 20-29G tanks, most with colorful swordtails in various stages of development, including wild green Montezumas as well as domestic high-fin swords, and some of the brightest of these had just come inside after they spent the summer in his new pond. And even though Klaus has cut down to "just swordtails", he had a tank of fish for the sword raising contest, a pair of angels, a group of yellow African mouthbrooding cichlids, and some kuhli loaches. A 90-gallon tank sat empty except for a giant pothos plant sprawling out of the top, just waiting for the right occupants to come along. Klaus feeds the fish "a couple a times a week if I remember" on dried and freeze-dried foods--but it's clearly often enough to keep them bright and beautiful. Filtration and aeration is powered by a silent linear piston pump. Outside he has a waterfall and pond, new this year, currently occupied by only a few swordfish that escaped his net.

Next on the tour was Charles and Sue Harrison's fishroom, in which so many fish are packed into so small a space that we had to take turns visiting the fish. But in that very small square footage you'll not only find gorgeous killifish of many species, but also scattered cichlids including several Apistos, and some rare anabantoids, most in 5 or 10G tanks. Java moss, java ferns, and yarn mops are everywhere providing spawning sites and shelter for the many fry (1000+ BAP spawns have come out of those 12x12 feet). He finds that he can work with cool water species on the bottom racks, and warm-water preferring fish on the top--because when it's not occupied by a succession of people heating it up, the fishroom stays a steady 72 degrees, with just enough difference from bottom to top to keep fish from different environments happily spawning without heaters or chillers. I wish I had cool enough conditions to bring home some *Aphyosemion elberti* N'tui. Brine shrimp bubble away next to the sink, above 55G drums for dechlorinating water. White worms and grindal worms are raised in the basement outside. And another one of those silent pumps drives the filtration and aeration.

I had to skip the group lunch to get back to my place early to finish vacuuming. I don't have a fishroom, but the living room of my apartment has gradually been taken over by tanks--29G tanks on individual stands, a stack of 3 12G "nano cubes", and 3 tiny tanks on a stand have even colonized the dining room space. The six larger tank in the living room are all heavily planted, with a single large CO2 tank and lots of tubing providing CO2 to all these tanks. Two giant goldfish dominate one tank, and Endler's livebearers are everywhere else, along with scattered killies, some mild-mannered cichlids, loaches, small corydoras, and too many snails. Baby brine shrimp hatch on a stir plate in the kitchen, microworms live above the toaster, and daphnia hang out in drum bowls on the windowsill--all ready to go anytime the *Thorichthys* finally figure out that it takes two to tango and present me with hungry fry. Though CO2 tubing snakes from tank to tank, each tank has its own filtration and aeration is provided by biowheels, since I didn't know about those silent linear piston pumps when I was adding tanks to my fishroom.

As the day went on, the plant density increased, ending with Gary Lange's "coffin" tank--the 200-plus G 7' x 2' x 2' show tank so thick with plants that many of the fish were invisible until drawn out by food. This massive tank has its own CO2 system, a mix of fast and slow growing plants so that Gary doesn't have to spend all his time pruning, and a large "crew" of algae eaters including many very busy Amano shrimp. And the rainbow of mostly rainbowfish that school in this tank obviously enjoy their surroundings. In the main fishroom, and spilling over a little into the rest of the basement are dozens of smaller tanks, some planted, some bare, with many different rainbows, anabantoids, and a scattering of other fish breeding and growing out. Even the "junk" tank--a shallow open tank below

several racks of tanks--was thick and lush with low-light plants. I was particularly struck by how much more impressive his schools of rainbows are than the washed out juveniles you see in the stores--even the more subdued, pastel-colored rainbows were brilliant.

After a two week break, the tour resumed with Ed Millinger's cichlid haven. I first noticed a very large tank (200-ish gallons) that looked quite empty, but for a few rocks and plants. What lucky fish live there, and where are they? Looking closer, I see a group of six nervous Altum angelfish huddled in a corner. They were recently relocated from a 75G tank, and were coping with a dozen visitors to their quiet space, but found Steve Edie a soothing presence as he sat quietly nearby, and gradually came out a little more so Charles and I could take their portraits. In addition to being taller and narrower than the common scallares, these wild angels outshine their domestic cousins with bright blue foreheads and red spots superimposed on their silver and black striped background. Ed also keeps wonderfully plump kuhli loaches, platies, bristlenose plecos, and several other larger south American cichlids in a collection of mostly larger 29-75G tanks. I arrived late so didn't get all the fishkeeping details, but however he does it, Ed obviously keeps his fish very happy and spawning.

We drove next to Jerry Jost's plant heaven. In one room were two 125G show tanks lush with plants, especially many bright red species, and also with a busy cleanup crew of shrimp, snails, bristlenose plecos and otocinclus. These plants are pampered with bright light, injected CO2 controlled by a pH monitor, regular fertilizers, and a low fish load. After breaking down these tanks recently to get rid of their "infestation" of hundreds of kribensis, Jerry is taking his time deciding which lucky fish will get to go in these next--ideally one that won't breed quite so prolifically or be so hard to thin out without digging up all the plants. In the back fishroom, gouramis, angelfish, and killies share space in smaller but still densely planted tanks. The killies in really thrive in this lush environment. It must be almost pleasant to use the exercise equipment that shares the basement, contemplating those lovely tanks instead of how many minutes of workout left.

Mike Hellweg has plants in almost all of his tanks, but the stars are the little fish inside--some of the littlest are the brightest. Gobies, anabantoids, tetras, rasboras, cories, apistogramma, danios, cories, even wild-caught Endler's livebearers (I kept my hands on my camera and only brought them home as in photos, honest!) can be found in Mike's tanks. A wide variety of prepared and live foods keep the fish interested in spawning, and careful notes keep track of which fry hatched when in which tank. After years of buying, propagating, and selling many plants to the rest of us plant-aholics, Mike is redesigning his fishroom to include some planted show tanks, and perhaps by the time of the next tour we'll be able to see large schools of brilliant little fish inhabiting them. Meanwhile, we just enjoy the spectacle, getting very close up to tiny brown catfish that pack an impossible amount of pattern and detail--spots, stripes, bumps, fins, barbels--into just 1 inch of length.

Our last stop on the tour was Steve Edie's place, where cichlids and catfish frolic in large aquascaped tanks. There's the impressive Tanganyikan tank in the living room, a busy place full of Texas Hole-y rock and bright male aulonocara peacocks reigning over all; since there aren't any female aulonocaras, they leave each other and the smaller fish alone. The smaller cichlids are busy darting in and around the rocks, and the males flaunt their colors at each other and the females. Downstairs, the large tanks include a shell dweller's paradise with the bottom covered by hundreds of shells housing a colony of multifasciatus, an amazing beehive of busy little fish; a large tank with several frontosas never far from a PVC pipe retreat; the dwarf snakeheads surrounded by their fry; large open water tanganyikan killifish (yes, those large brilliant schooling fish are killies!); and several planted tanks dense with barbs, tetras and especially catfish. Steve tossed in a few pellets to give us a show. The shrimp got their first, then the tetras, then some smaller cories, then a bristlenose pleco who simply sat on top of it until satisfied, when still more shyer cories took over. Each of Steve's tanks is a community, some with many species, some with only one, but interesting little dramas playing out everywhere. And to preserve the furnishings around all those large tanks, he moves couches before water changes and has indoor/outdoor carpeting in the downstairs fishroom.

The fishroom tours were inspiring, showing a variety of fish in different settings, and inspiring fantasies about what I could do if I found just a little more space for another tank to hold some flashy rainbowfish, or put shells instead of gravel in a smaller tank, or pushed the lighting and fertilizing to really get some seriously red plants. I have made one big change inspired by the tours: my giant goldfish have gone to live in Klaus' 90 gallon tank until the spring, when they'll get to enjoy his new pond. And I now have a 29G tank, newly liberated from the plant-thrashing goldfish, to aquascape and stock with smaller, plant-friendlier fish....rainbows or danios, schooling killies or a fleet of little corydoras? If I could just find a small, beautiful, duckweed-but-not-other-plant-eating fish....

The Old Switcheroo

By Ed Millinger

Earlier this year Gary Lange called to ask if I had any live blackworms. He was taking pictures of live foods for a magazine article. I told him I did have some and that the local petshop also carried live adult brine shrimp.

When Gary arrived he noticed the six altum angelfish (which I bought from Mike Hellweg almost two years earlier) in my 75 gallon tank. He also saw the 200 gallon aquarium directly across from it and pointing to the altums and then the 200 he said, these (altums) should be over there (the 200). I realized Gary was right and started to plan on how to accomplish it.

In the 200 I had three adult silver dollars, seven 3-4 inch clown loaches, two moustache danios, two large pink tailed tin foil barbs, a half dozen giant danios, a male burnos aires tetra and two fully grown combtail gouramis.

The first move I made was to take the combtail gouramis, six giant danios and the tetra down to two of the aquariums at the Ronald McDonald houses. I didn't have any place to go with the other fish, so they would have to be happy in the 75. Next to ensure good water quality I performed a 25% water change on both tanks. I was more worried about the altums than I was the other fish. I then drained 25 gallons out of the 200 into a large trash can and caught the fish in the 200. I then took another ten gallons out of the 200 for a total of 35 gallons. I drained 35 gallons from the 75 into my water change barrel and then into the 200 to get it up to full capacity. With the water level down more than 50% it was much easier to corral the frightened altums. After putting them in the 200 I transferred the fish from the trash can into the 75.

Both tanks were now full of nervous and excitable fish. I was careful to provide cover in the form of clay pots, driftwood and plants (except in the 75 because of the silver dollars who would not let them be). The altums took to the left hand corner and hovered there for quite awhile. Any movement would send them darting down to the other end of the tank. They stayed skittish until I followed a suggestion made by Steve Edie during the fish room tour. He suggested that I add some dither fish to help bring them out. I had some red eye tetras that were just perfect for the task and I am happy to report that now, five weeks after the initial move the altums have adapted well to their new home and have become a lot more fun to observe. The fish in the 75 still aren't real happy, imagine going from driving a Cadillac to a Yugo! Keep your eyes open you just may see some of them in an upcoming auction.

The Conquering of the Dreaded Hydra

by Delores Schehr

reprinted from March 2004 *Tropic Tank Talk* of the Greater Detroit Aquarium Society

First, I begin by saying 50 years experience keeping tropical fish does not give one the degree of "knowing it all". Working with and breeding these little gems is a daily learning experience. Well, the biggest "learning experience" I have ever had to this point came recently as a complete shock. Over the years I have had my share of losses with small baby fishes such as the babies of *Lamprologus*, *Julidochromis*, Rainbows, *Bettas*, etc. When checking through the tanks of the adults we collect eggs, hatch them in small containers and when they no longer have their sacs and have started to swim and look for food such as baby brine shrimp, they are transferred to another temporary home. This can be anything from a 2 1/2 gallon to a 10-gallon aquarium. These tanks sometimes have gravel with an undergravel filter. Well, what is all this building up to? Always, there are losses in the baby fish. Sometimes only a few, while other times it can be the whole spawn [that] disappears. What did we do wrong this time? Did we transfer the fry into too fresh of water? If this was the problem then we tried using the water from the parents' tank. It usually brought about the same results. We tried using water from tanks that housed only a few fish and was very clean. This seemed to work for a while, but then back to the baby fish mysteriously disappearing again. We asked ourselves if they were getting pulled down into the undergravel filter. Well, if this were the case we would put them in a bare tank. This went on with trial and error for a couple years. Sometimes we thought we had the situation of dead or missing babies figured out and then it would happen again. We would let young spawn go into a tank and the next day the tank appeared empty. How about... shell dwellers spawn and you wait for the appearance of the new fry but it doesn't happen. Did they die? Did the parents eat them? Maybe you just thought they spawned but if you never see the babies you can't be sure, can you?

Then one night I got the answer to all of my questions. I was spending one of my usual evenings water-changing and working with the fish, and as I was finishing up I realized there was one last job that needed to be done. A 2 1/2 gallon tank, holding approximately 350 *Lamprologus tretocephalus* 1/4" long fry needed to be transferred to a larger tank if they were to make it till morning. Amazingly enough there was a 10-gallon tank that had been emptied two days prior of its inhabitants, so it seemed the logical place to move the trets. Another thing in favor of this choice was the tank had been given a 75% water change the day before. So, I began by removing just enough water so that I could pour the baby fish, water and all, out of the 2 1/2 gallon into the 10-gallon. As soon as the fry were poured into the tank they did what would be expected and all settled down to the bottom. What happened next left me stunned. The fry began to flail around as though they were trying to get free of something. Some of the trets were doing the same thing on the side glass. It was as though they were stuck there. What in the world could be causing this strange behavior? A close inspection with the aid of a magnifying glass soon told me mysterious goings on were all about. Hydra !!! They were coming out of everywhere, grabbing the babies and killing them. I grabbed a siphon hose and tried to siphon out the ones I could. But it was no use, as the ones I seemed to be rescuing had been stung by the tentacles of the Hydra and soon died anyway. I felt defeated, and so stopped siphoning and left the tank about halfway emptied.

The next morning when I went to the hatchery, I checked to see if I had any survivors, but there were none. What I did find was a tank with the bottom totally covered with large, fat Hydra. Although it was a very hard lesson to learn, I realized then what had always been the cause of our fry disappearing, and I'm sure for many other hobbyists, too.

But that's not the end of this story... Hydra have always been present in my tanks and they seemed to be where Baby Brine Shrimp nauplii is being fed. I have used different methods of decreasing their numbers, because sometimes the Hydra even form a carpet bed of green in small areas. There are several products that will eliminate some of them but never completely. But now that I knew what had been killing off our very small fry, something had to be available to get rid of their mortal enemy.

Before I get to the answer, let me tell you a little bit about Hydra. I have checked the literature in most of my books and there is little or no information about how they come to be in our tanks or what it takes to get rid of them. One thing I do know is that they seem to always be where brine shrimp nauplii is being fed. The most information was in the book Encyclopedia of Live Foods by Charles O. Masters. He says Hydra is considered a live food but only eaten occasionally by some tropicals, such as the Blue Gourami. Not many aquarists try to culture Hydra, but if you want to, there are three basic essentials to do it. 1.) Clean water, 2.) Temperature of at least 70°F, 3.) A reliable and continuous source of live food. What are their foods? You guessed it! Daphnia and Brine Shrimp Artemia. The numbers of Hydra produced are directly proportional to the amount of artemia fed. This then sort of rules out the idea held by quite a few aquarists that brine shrimp eggs bring in hydra, but instead, probably comes through our water source.

The following information is taken from the 1992 Grolier Electronic Publishing, Inc.; Hydra are small coelenterates that commonly occur in fresh water. Mostly sedentary, their base is attached to a surface by adhesive mucus. They are simple, elongated polyps, composed of a stalk, and an oral region containing a mouth surrounded by 4 to 8 slender tentacles. The mouth opens into a gastrovascular cavity. Hydra are carnivores. They kill their prey released from stinging cells located on their tentacles, which place their prey into their mouths. Hydra reproduce asexually by a small bud appearing on the stalk which grows, develops a mouth and tentacles, and detached itself, becoming a new and independent Hydra. When a Hydra is well-fed, a new bud can form every two days.

Since this article was originally written, I have become familiar with another species of Hydra that is even more dreaded. This species, which we call "Super Hydra," forms connecting rows as it multiplies, then will find something like a rock and cover it with a much larger Hydra. It will climb on the glass wall of the aquarium and keep building as it goes. It also gives off a very pungent odor.

And now for the rest of the story... Getting rid of Hydra for most of us can be a real project, and every kind of method from salt to electrical impulses has been tried. But, I found the way to get rid of them for quite a period of time and it is so easy that it just doesn't seem possible. The company, Aquarium Products, has a product called Fluke Tabs, that I was using for another purpose, but found it totally eliminated the Hydra in the tank as well. All I do is dissolve the Fluke Tab in the aquarium where the Hydra are present. And in 2-4 hours, there is no sign of them left. It works well on the Super Hydra, too, but it takes as long as a day or two to get rid of a tank it. The Fluke tabs dissolve very readily, making them easy to use. The most wonderful part of the whole thing is that I have used the Fluke tabs on all species of baby fish and all sizes of fry, with great result of getting rid of the Hydra without hurting the fish. They are used at a dose rate of 1 tablet per 10 gallons of aquarium water. (Not to be used in a reef aquarium or with invertebrates.) I have cut back on the dosage when the tank was only slightly infested and had the same great results.

As I said in the beginning, every day is a learning experience, and now no more unexplained deaths or mysterious disappearances of baby fish.

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Breeding Neon Tetras

by Laura Straub

reprinted from June 2000 The Shoreline, of The Jersey Shore Aquarium Society

I purchased a half dozen Neons at a local pet store. When buying Neons, make sure that the red is a deep cherry red with no pink or white areas because this may be a sign of disease. Study the fish for a while and it becomes easy to tell the males and females apart. The males are slender while the female's abdomen is a bit rounded. The blue line on her side will appear bent because of this. When you get your fish home, place them a well-established and peaceful community tank for conditioning or keep them by themselves if you have the room. Depending on their size, you will need to condition them for a couple of weeks to a couple of months. Feed a varied diet making sure to include live food, particularly live worms. You may have to chop the worms a bit if they're very large but these little fish can handle the smaller blackworms whole.

While you are conditioning the fish, set up a small tank for breeding. I used a four-gallon plastic critter cage. Fill the tank with R/O or rainwater. Use a box filter with peat moss as the filter media. Do not use any carbon. Cover the entire box filter with a nylon stocking to prevent sucking up the eggs or tiny fry. Place a clump of Java Moss in the tank. To make sure it's clean, swish it around in a bucket of water. I found that if you just rinse it in the sink, it leaves a lot of debris in the moss. The filter should be running in the tank for at least a week (you're conditioning your breeders anyway). You will not need a heater as long as the room temperature is around 70 degrees.

Now you're ready. Pick your best-looking pair and place them in the breeding tank. The fish will usually spawn on the second or third day. If your eyes are good you will be able to see the eggs. Good lighting helps a lot when you're trying to see the eggs or fry but constant bright light may not be a good idea. Some literature says that light is bad for the eggs. My tank was on the bottom shelf so the light was bad. The first time they spawned I never saw any eggs or fry until they were about 2 weeks old. I bred them again where I was able to get daylight behind the tank and was able to see them. If you can't see the eggs, you may be able to tell they spawned because of the female's belly will not appear as full. The parents should be removed after spawning or after 4 days (if nothing happens by then they will need to be conditioned again). It is not necessary to feed them while in the spawning tank. If you feel you must, be sure to feed only as much as they will eat to avoid fouling the water.

The eggs will hatch after only one day and when disturbed they dart blindly around the tank, a tiny dot with nearly invisible tail. In about 5 days your babies will be ready to eat. Tiny as they are, they can eat newly hatched brine shrimp right away. Mine seemed to grow slowly for 3-4 weeks and then suddenly at 5-6 weeks they were small replicas of their parents. Resist the temptation to move the Java Moss around during the first few weeks looking for babies. I did it and later found a few tiny bodies that were probably crushed when I moved the moss.

I haven't perfected the technique yet. I only got 9 babies from the first spawn and about a dozen from the second (don't try it without a filter). I tried it in a little half-gallon tank and although I could see eggs and fry this time most of the eggs fungused because I couldn't fit in a filter and the bacteria killed the eggs. With patience I hope to get a big spawn of 50 or more like I got with the Glowlight Tetras.

I'd like to thank my friend Rosario LaCorte because without his advice I probably wouldn't have gotten any babies. Most of the tips about conditioning and setting up the tank are his.

Lepidiolamprologus kendalli

by Peter Shepard

reprinted from Nov/Dec '03 *Fincinnati* of the Greater Cincinnati Aquarium Society

Lepidiolamprologus kendalli is a large predatory fish endemic to the rocky habitat of Lake Tanganyika. I had attempted to breed and raise *L. kendalli* or *L. nkambe* many times before with no luck. My experiences attempting to raise these fish and from talking with others gave me a lot of insight on how to set up the tank, a lot of rock work and hiding places. These fish are nasty aggressive fish, probably one of the meanest fish I have ever kept and spawned. If you attempt this fish be prepared to pull out the dead members that do not pair off!

I acquired six wild specimens from a local importer and wanted to try my luck with them. I brought the six fish home and placed them in the tank that they would hopefully live in. They were placed in a hundred long with six *Cyprichromis* sp. "Zebra" and eight *Neolamprologus sexfasciatus* Gold. The *L. kendalli* ranged in size from three to four inches. The *Cyprichromis* and *sexfasciatus* were all around 3 inches as well. The *kendalli* have a torpedo shaped body and are notorious for jumping out of tanks, so I took the pre-caution of covering the entire top of the tank. I had learned this experience by finding 2-inch specimens on the floor that had jumped through a half-inch circular hole in the lid. The tank was adorned with hiding places and rocks throughout the tank in hope that there would be enough room for the fish to hide from each other.

When I checked on the fish the second day I had one casualty and the *sexfasciatus* were beat up hovering in the top corner of the tank. I took out the dead *kendalli* and moved the *sexfasciatus*. I watched the *kendalli* continue to chase each other and beat on each other. I waited to see which ones would be accepted into the group and which ones would end up in the corner of the tank to separate them. I was unable to save any of the outcasts and continued to pull out dead fish for a month until there was four fish left in the tank. The four seemed to live peacefully with the *Cyprichromis* for another month until one day two of them were floating at the top of the tank. I pulled out the fish and left rocks at one end of the tank and a flowerpot cave at the other end. This set-up worked for the two remaining fish in the tank. I suspected that they were a pair only because they did not kill each other.

The two lived together for another two weeks without any incident and I boasted about having a pair of *L. kendalli*, even though the fish held up residence three feet from each other. My boasting soon paid off; I noticed that there were around 20 eggs on the ceiling of the flowerpot. I was so pleased but was not sure if the eggs were fertile. It turned out that the eggs were not fertile and I would not be rewarded with any fry. Three weeks later I noticed that there were more eggs in the cave and this time the eggs hatched out. I noticed around 20 free-swimming fry that were guarded diligently by the female. The male seemed to have nothing to do with the fry and remained in his cave three and a half feet away from the female and the fry! The two spawned two more times and the all of the fry would eventually disappear. I took the gamble to remove the *Cyprichromis* as I suspected that they were eating the *kendalli* fry.

Three weeks after removing the *Cyprichromis* I was treated to a wonderful sight. The two *kendalli* were next to each other by the females cave. It appeared as if the fish were beating each other to death; they would lock jaws and go at each other. I watched this for around ten minutes and was unaware of how long they had been going at it before I came down to watch. This in fact was the spawning of *L. kendalli*, a brutal display of affection, but spawning nonetheless! The next day I looked in the cave and saw around 50 eggs. The female fanned the eggs and after around four days I noticed the fry beginning to develop. About a week after spawning the fry were free-swimming and hovering outside the cave with the female watching over her brood. The female watched over the fry for another ten days as the fry ventured further out into the tank. The fry are raised in Cincinnati tap water: pH of 7.7 hardness of about 250 ppm and a temperature of 78 degrees. They are fed on crushed flake and Cyclops-eeze.

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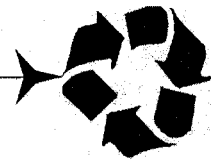
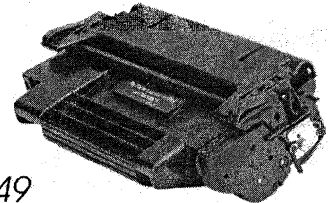
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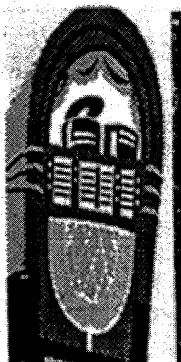
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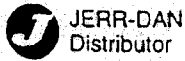
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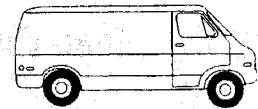
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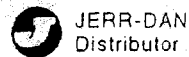
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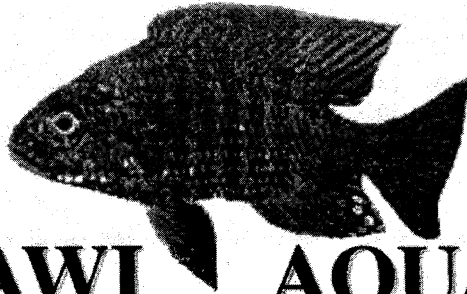
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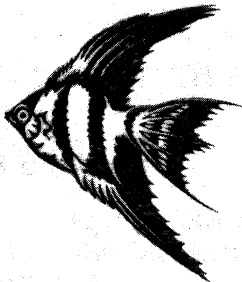


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Thank you all so much for thinking of us and being our customers all these years! We will miss you all!"

Jim, Sue, Shelly, Amy, Ben, Nick, Josh & Jessica
- Arnold Pet Palace

Thank you, Jim and Sue!

MASI would like to thank Jim and Sue (the Best Betta) Amsden, and all of their staff over the last 20 years, for their support of both the hobby and of our club. For the last several years, Jim has joined with others to donate a tank setup for the Annual Show Raffle. Jim and Sue took time out of their Saturday morning off to judge at our shows. And, for as long as I can remember, Jim and Sue offered a discount to MASI members. They made the effort to bring in hard-to-find fish. They were kind enough to trade fish and plants to hobbyists, and even let many of us catch our own fish! They are hobbyists, and friends to all of us in MASI.

Arnold Pet Palace will be missed.

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