

The DARTER

October – November - December 2003

**Missouri Aquarium Society, Inc.
St. Louis, Missouri**

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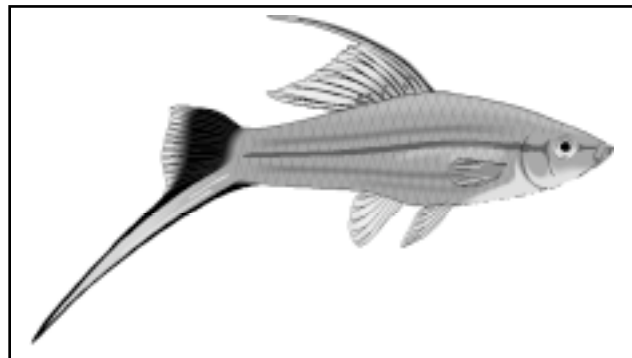
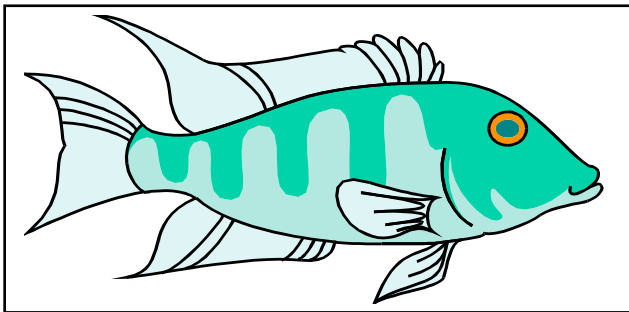
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Places to Be Things to See

THURSDAY, August 21, 2003

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

Program: ?

Bowl Show: OPEN

SATURDAY, August 23, 2003 Executive Council Meeting, 7:30 PM

@ The home of John Van Asch

THURSDAY, September 18, 2003

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

Program: ?

Bowl Show: OPEN

THURSDAY, October 21, 2003

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

Program: Rusty Wessel will talk to us about Collecting in Mexico

Bowl Show: OPEN

THURSDAY, November 20, 2003

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

Program: ?

Bowl Show: **SUPERBOWL 2003**

SATURDAY, December 6, 2003 Executive Council Meeting, 7:30 PM

@ The home of Mike & Angela Hellweg

□

THURSDAY, January 15, 2004

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

Program: ?

Bowl Show: OPEN

SATURDAY, January 17, 2004 Executive Council Meeting, 7:30 PM

@ The home of Gary Lange

THURSDAY, February 19, 2004

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

Program: ?

Bowl Show: OPEN

SATURDAY, February 21, 2004 Executive Council Meeting, 7:30 PM

@ The home of Jack Berhorst

BAP Report

Steve Edie

June 2003

Mike Hellweg

<i>Inpaichthys</i> sp. "Red Emperor"	Red Emperor Tetra	15*	1350
<i>Pelvicachromis</i> sp. "sacramontis"	Scarlet Krib	15*	1370
<i>Telmatochromis vittatus</i>		10	1380

July 2003

Jack Berhorst

<i>Hemichromis stellifer</i>		10	45
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Charles Harrison

<i>Aphyosemion australe</i>	Orange Lyretail Killie	15	1015
<i>Apistogramma commbrae</i>		15	1030

Mike Hellweg

<i>Apistogramma cacatuoides</i>	Cockatoo Cichlid	15	1395
<i>Chromaphyosemion bivittatum</i>		15	1410

Ed Millinger

<i>Xiphophorus helleri</i>	Spotted Green Swordtail	5	404
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Pat Tosie

<i>Dimidiochromis compressiceps</i>	Malawi Eye Biter	15*	2733
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* First MASI spawn (5 point bonus)

August 2003

Bob Buckles

<i>Aequidens pulchrus</i>	Blue Acara	5	15
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Mike Hellweg

<i>Melanotaenia herbertaxelrodi</i>	Yellow Rainbow	10	1420
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Charles Lenau

<i>Carassius auratus</i>	Shubunkin	1	233
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Rick Tinklenberg			
<i>Altolamprologus compressiceps</i>	"Sumbu" *	15	410
<i>Apistogramma cacatuoides</i>		15	425
<i>Apistogramma elizabethae</i>	*	15	445
<i>Pelvicachromis humilis</i>		15	480
<i>Steatocranus tinanti</i>		15	495
<i>Tanichthys albonubes</i>	Long-Fin White Cloud	10	505

John Van Asch			
<i>Labidochromis caeruleus</i>	Lemon Yellow	10	200

September 2003

Jack Berhorst			
<i>Xenotoca eiseni</i>	Red tail Goodeid	15	60
Mike Hellweg			
<i>Melanotaenia pygmaeus</i> *	Pygmy Rainbow	10	1435
Ed Millinger			
<i>Tanichthys albonubes</i>	Long-fin White Cloud	10	414
Jim Yaekel			
<i>Cyprinus carpio</i>	Butterfly Koi	10	267
<i>Poecilia sphenops</i>	White Molly	5	272

Almost membership renewal time!

Your MASI membership expires in December 2003. Renewal time is typically in January.

The postal service has requested that we use a new method for membership. Unfortunately, this means paperwork. I need all renewing members to fill out a very short form confirming address and including email. This form will be kept by MASI and treated as personal information. We will NOT turn this info over to anyone. The post office just wants assurance we're doing it.

Please consider filling out this form at the October, November, or December meeting. You DO NOT need to pay early, just fill out the form. In January, when you renew, I'll initial the form and you're done.

If anyone needs to contact me for any reason, my email is the fastest way.

Thanks!

Kathy Deutsch

membership chair

email: fishfan@i1.net

HAP REPORT

Mike Hellweg

Reproduction Key: □

V = Vegetative, OB = Outdoor Bloom, IB = Indoor Bloom, S = Seedling

August 2003

Maureen Green				1185
<i>Colocasia antiquourum 'illustris'</i> []	Imperial Taro []	OB	10	
<i>Colocasia esculenta 'fonatanaii'</i> []	Purple Stem Taro []	V	10	
<i>Nelumbo sp. 'momo botan'</i> []	Momo Botan Lotus []	OB	20	
<i>Nymphaea sp.</i> []	St. Louis Gold Lily []	OB	10	
Mike Hellweg				1915
<i>Echinodoras sp. "Oriental"</i> []	Oriental Sword []	IB	20	
<i>Echinodoras sp. "Oriental"</i> []	Oriental Sword []	S	15	
Charles & Maryann Lenau				275
<i>Eichornia crassipes</i> []	Water Hyacinth []	OB	5	
<i>Saururus cernuus</i> []	Lizard's Tail []	OB	10	
Ed Millinger □				285
<i>Egeria densa</i> []	Anacharis []	OB	5	
Tom Schnur				160
<i>Anubias barteri var. nana</i> []	Dwarf Anubias []	V	15	
<i>Bolbitis heudelotii</i> []	African Water Fern []	V	10	
<i>Vesicularia dubyana</i> []	Java Moss []	V	5	
Derek Walker □				1175
<i>Ammania gracilis</i> []		V	15	
<i>Echinodoras sp. "Rubin"</i> []	Red Rubin Sword []	V	15	
<i>Eichornia crassipes</i> []	Water Hyacinth []	V	5	
<i>Ludwigia glandulosa</i> []		V	5	
<i>Salvinia auriculata</i> []		V	5	
<i>Vallisneria biwaensis</i> []	Contortionist Val []	V	5	
<i>Vallisneria neotropicalis</i> []	Red Marble Val []	V	5	
Harold Walker □				460
<i>Anubias sp. 'Frazeri'</i> []		V	15	
<i>Cardamine lyrata</i> []		V	5	

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A Rough Ride with a Tiny Horse

Hippocampus zosterae, *The Dwarf Seahorse*
©Mike Hellweg, 2003

The Dwarf Seahorse, *Hippocampus zosterae*, is a truly diminutive creature. The name in print on this page is longer than the fish is in real life! It is a truly amazing animal that many people don't even believe exists. Until recently, it was the smallest member of its genus. But now two more diminutive Seahorse species have been found – one of them just within the last few months. A fish that swims upright with the head of a horse; a high-powered vacuum/trapdoor contraption for a mouth; an armor plated body shaped like the knight of a chess set; a prehensile tail like a monkey; a nearly invisible dorsal fin that beats 75 times a second; males that go through labor and give birth to living young; eyes that move independently of each other like those of a chameleon; the ability to change color; and even to grow camouflage. Wow! And it's for real, not a creature of fantasy!

Ever since I was young, I've seen the ads in the classified sections of various magazines: "Live Sea Horses! Males give birth to cute Sea Ponies! For just \$1.00 (okay, I've seen the ads for a LONG time!), you can bring these mystical creatures into your home!" I love reading ads – ads of all kinds, but especially aquarium and hobby related ads. It often amazes me what the adman will come up with to get you to buy whatever it is that he is hawking. Remember *Sea Monkeys*TM? What an amazing ad campaign for brine shrimp! But the amazing thing about the ad for the Seahorse is that it doesn't have to make anything up to make these fascinating creatures desirable. The only drawback, and it is a big one, is that they are difficult to properly care for. In fact, aside from the Dwarf Seahorse, most Seahorse species are better left to the dedicated specialist, or in the wild. In this article I want to share some of my experiences with trying to keep and breed these magnificent miniatures.

Earlier this year, a hobbyist looking for some of the fish I had for sale on Aquabid contacted me. He wanted to trade, not buy fish. Usually I'm not too interested in doing this since you don't really know with whom you are trading and there is no umbrella organization like the AKA or ACA to regulate the trade. But what he offered in trade was too tempting! He had a group of tank raised Dwarf Seahorses that he wanted to trade for a group of my Swordtails! I hastily accepted. I could afford to lose a group of juvenile Swords and the postage for the chance at getting a group of the long-coveted Dwarf Seahorses – and tank raised at that!

I quickly set up one of my Show tanks (which I normally keep just for the MASI annual show) for the Seahorses. It's one of those fancy Marineland Eclipse 6-gallon tanks with the wet-dry power filter and light fixture built in. It would be perfect! I filled it with 6 pounds of crushed coral and mixed the salt mix into a 5-gallon bucket of water. I did not add a heater – they would be fine at room temperature. Kathy Deutsch helped me out with a starter of *Caulerpa*, (a funky wiry species I have not identified yet) and I picked up 5 pounds of live rock. The tank was ready. While I was waiting for the Seahorses to arrive, I started seeing all kinds of little critters crawling about the tank. This came back to bite me, but more on that later.

I shipped out the Swordtails right before one of the interminable snowstorms we experienced last winter moved in. They arrived just fine, but we decided to wait until later for him to ship the fish to me. About a week later, he shipped the fish. And another one of those nasty snowstorms rolled in. My mail carrier carefully delivered the tiny box to me 3 days later. I was amazed. He didn't use my comparatively giant box (12 x 12 x 12 styro) to ship the fish back. He put them into a 5 x 5 x 5 cardboard box! There was no styro – they were wrapped in newspaper! I figured they would be dead for sure. I carefully unwrapped the bag, expecting the worst. But they were all fine! The water temperature was 56°F, but they were all swimming around the bag looking none the worse for wear. Here I learned Lesson #1 – they are VERY hardy!

I put them into a small bucket, and started a drip line from the tank to the bucket. I did not want to warm them up too quickly, so I tied a knot in the line to slow the drip to just a drip every five seconds or so. A couple hours later, they were swimming in a bucket of mostly my water. I carefully netted them out of their bucket and put them into their new home. I refilled the difference in tank water with some more fresh salt water that I had mixed up the day before – never add the shipping water to your tank. Here I learned Lesson #2 – they are deceptively fast and are more difficult to net than you would expect! They can really get moving when they need to! They straighten out and go for broke. And they can hang onto the edges of the net and refuse to let go! Moving them to their new home was an amusing and interesting experience.

Once in the tank, I could see them more clearly. I had 9 fish – 7 females and 2 males. And one of the males was bulging. They settled in quickly, and went about exploring the tank. Here I learned Lesson #3; a six-gallon tank is too big for 9 Dwarf Seahorses. As they settled in, they disappeared! It took me a little longer each day to find them as they got better and better at blending in with their surroundings. People who visited the fishroom just smiled and said something like “sure, there are all kinds of Seahorses in there!”. If I couldn't see them and I knew where to look, I guess they could not see them at all!

As soon as they were all in their new home, I gave them a feed of newly hatched brine shrimp. Here I learned Lesson #4; the Eclipse Six filter is very efficient! It removed most of the live baby brine within a few hours. After this, I turned off the

filter whenever I fed the fish. But the Dwarfs also learned; they started hanging around the inlet to the power filter when I turned the filter back on. Smart little guys!

NEWLY HATCHED brine shrimp is the preferred food for Dwarf Seahorses. If it is more than 36 hours old, it needs to be fortified with a HUFA (Highly Unsaturated Fatty Acid) supplement like Selco®. If it is *NEWLY* hatched, it still has plenty of nutrient value for the Seahorses, and can serve as their sole diet, unlike with the larger Seahorses. After the third molt, which occurs at about 36 hours post hatch, the brine shrimp has little nutrient value and needs to be fed (or “loaded”) with a supplement to make it more nutritious.

The next day after arrival, the bulging male presented me with 3 baby seahorses. Two of these were stillborn (I assume from the stress of shipping), but the third was actively exploring the tank looking for food. It was a long, skinny, miniature copy of mom & dad. All stretched out, it would have been barely 3/8” from tip to tip. I figured the live baby brine would be too large for it, but it managed just fine. I watched for a while, and it carefully stalked and ate several shrimps while I watched. Hey, this was going to be easy! Yeah, right...

A little less than two weeks later, the same male presented me with a batch of 8 little ponies. The other male never did produce any fry – maybe he was already beyond his reproductive age – I don’t know. I didn’t realize how much the first pony had grown until I saw the newborns. Wow! They grow fast! I put a nylon net breeder in the tank to allow the fry something to hang onto so they could feed near the surface where the majority of the brine shrimp congregated after an hour or so. Here I learned Lesson #5 - They are eating machines! Within a few hours, most of the brine shrimp was gone, and the babies were bulging – so were the adults.

I did some research in a couple of books on Seahorses and found out that the gestation period of the Dwarf Seahorse is only 10 days! Not only do they grow fast, but they develop quickly from egg to pony! During their breeding season, the male is almost always in some stage of pregnancy. It didn’t take long until that one little male had produced quite a few little ponies. I have also read that male and female seahorses pair bond. Some authors claim it is for life, others claim it is just for one breeding cycle. Well, that little stallion and those little fillies certainly never read those accounts. At one time or another, I saw him entwining tails with at least 4 of the 7 females! Interestingly, the other male never seemed to be interested in the girls, only in food. He was always the first one to the feeding area when I was in the fishroom.

As I became more familiar with my fish’s behavior, I was able to watch the mating dance of the seahorse. It is much more elaborate than that of the other livebearers I have observed. The male puffed his pouch at the female; they bowed to each other, entwined tails, and rose up together in the water column with their bellies touching. They did this several times, and I guess one of these times the female actually transferred eggs to the male. Some sources mention that you can

sometimes see the eggs, as one or two miss the pouch and fall to the bottom of the tank, but I did not see this.

Here are some other tidbits that I learned through reading and observation – they are presented in no certain order: Dwarf Seahorses spend much of their time hanging upside down in the current, searching for food. Don't get excited, this is normal. They seem to change color fairly regularly due to changes in mood, etc. Each fish looks a bit different and you can easily recognize individual fish after a while. Certain fish seem to have a certain "basic color" that they maintain most of the time, but it darkens and lightens throughout the day, and as they interact with one another. Dwarf Seahorses have small broods – even large males will only deliver 8 – 10 ponies. Males seem to be always pregnant during mating season. They usually mate within a day or two of delivery. Don't let them go even a day without food – they don't have a proper stomach, and due to their exoskeleton they do not build up fat reserves, so they need to eat constantly. If you can't provide food for them on a daily basis, don't try to keep them. Young Dwarf Seahorses will also eat freeze-dried Cyclopeeze. I tried the frozen stuff, too, but they seemed more interested in the way the freeze-dried stuff floated and twisted in the current. You can have quite a few Dwarf Seahorses in a 6-gallon tank. At one point I had more than 40 of them happily swimming about. But that is where disaster set in.

At first, I lost a few of the adults. The other male that didn't deliver any fry went first – I suspect due to old age. Dwarf Seahorses only live for about a year, and he may have already been 10 months or more old when he arrived. Then I noticed that there were fewer fry coming up to feed. At about the same time, I noticed a large bloom of Hydroids, including a group that sexually reproduced and produced their free-swimming, jellyfish like Medusa stage. Hydroids eat live baby brine just like the Seahorses, so they were prospering on the same food as my fish. For those of you who don't know what they are, Hydroids are a group of animals related to Anemones, Hydra, Corals, Jellyfish, and other stinging animals. They look like miniature Anemones, with a fat oral disk and short, fat tentacles. They don't eat adult Dwarfs, nor do they seem to eat baby Dwarfs. But they do sting them and can cause fatal injuries to the ponies. Everything I read said that there was no cure, that I was doomed to failure.

But there is a cure – the same thing many hobbyists use to kill Hydra in freshwater tanks. I dropped a quarter tablet of Fluke Tabs® into the filter. The next day, all of the Medusae were gone, and most of the Hydroids had closed up. By the end of the week, all of the Hydroids were gone, and I haven't seen any since. However, the Fluke Tabs® kill other Inverts, too. I lost a nice group of Feather Duster Worms that was growing on the live rock, some sponges also declined and later died, and I lost several other little creepy crawlies that were pretty neat. Since then I haven't seen the tiny little starfish that came with the live rock, either.

But even after this, day by day I was seeing fewer Seahorses, and no bodies. Something was going on – but what? I pulled all of the live rock out, looked it over closely, and put it back in – nothing there. Or so I thought! Here I learned lesson #6 – the nasty little creepy crawlies

can hide VERY well. A few days later I found my very pregnant male sticking out of a little hole that I had not noticed before. I gently pulled on him, he struggled a bit, and something pulled back! Eventually I worked him out of the hole, but not before the tiny Pistol Shrimp that held the other end had done fatal damage. The Pistol Shrimp disappeared back into his little hole. I removed the live rock immediately from the tank. Mr. Pistol Shrimp wasn't going to get anymore fresh Seahorse meals! This is where I learned Lesson #7 – don't use live rock with Dwarf Seahorses. Too many of the cute little creepy crawlies that come with it can be deadly to your little Seahorses. Live rock is great in other situations, but keep it out of Dwarf Seahorse tanks! Since I removed the live rock, I haven't lost a single Seahorse. Unfortunately, all of the fish I have left are females. So I guess I'll have to break down and respond to one of those ads in the back of the magazines to get another male! After all of these years – the adman will finally get me!

To summarize the basic care requirements:

1. Small marine tank – the smaller the better. A 2-1/2 gallon tank would be perfect.
2. Standard marine mix – around a specific gravity of 1.024. Room temperature is fine – but keep it below 80°F.
3. A sponge filter is fine; in fact, it's probably better than the power filter I use.
4. Give them plenty of attaching places. Plastic plants, Caulerpa (first treated with Fluke Tabs®), and other décor work great.
5. Add a few tiny inverts to help with cleanup – turbo snails for algae control, maybe a small starfish, and a few tiny shrimp (the little “_” red guys from Hawaii are best – though I don't know what they are called).
6. Feed *NEWLY HATCHED* live baby brine shrimp daily – and feed a lot of it. They eat more than you might think! One of the studies I read said that a young seahorse could eat 3000 baby brine shrimp every day.
7. Don't use Live Rock or untreated (with Fluke Tabs®) Caulerpa. Don't add any predatory shrimp or large starfish (which can also eat small seahorses!). Also, stay away from Hermit Crabs – even the tiny ones will eat the Dwarfs if they get a chance. Also, if you want to try keeping marine fish – use another tank. The Dwarfs just won't be able to compete with them for food.
8. Watch them and enjoy their unique behavior!

Club Hopping

Steve Edie

Oct 2 – Atlanta: **Atlanta Area Aquarium Association** Fall Workshop

Oct 19 - Milwaukee: **Milwaukee Aquarium Society** Auction

Oct 19 - Cleveland: **Ohio Cichlid Association** Fall Auction

Oct 19 - Youngstown, OH: **Youngstown Area Tropical Fish Society** Auction

Oct 26 – Chicago: **Greater Chicago Cichlid Association** Cichlid Swap Meet

Oct 31-Nov 2 – Indianapolis: **Circle City Aquarium Society** Annual Show

Nov 7-9 - Dallas ?: **Aquatic Gardeners Association** Annual Convention

Dec 7 - Chicago: **Greater Chicago Cichlid Association** Cichlid Swap Meet

March 19-21, 2004 – Hartford, CT: **Northeast Council of Aquarium Societies**
29th Annual Convention

Apr 23-25, 2004 – St Louis: **Missouri Aquarium Society Inc** – Annual Show

July 2004 – Denver: **American Cichlid Association** 2004 Annual Convention –
hosted by **Rocky Mountain Cichlid Association**

The Fifth Time's the Charm

Tom Wojtech, Milwaukee Aquarium Society FI205SH@aol.com

One of my favorite groups of fishes is the dwarf armored cats: Corydoras, Aspidoras and Brochis. I always have a few varieties of these fish in my tanks. Currently I have about a dozen species in my fishroom. I seldom try to induce spawning with these fish since I am happy just to be able to enjoy having them around. This is my tale of what happens when I try.

Corydoras barbatus started to show up in the Milwaukee area about eight years ago and since I had never had them before, I needed them. They were not cheap but fairly reasonable. I took home a half dozen of these beauties. I set them up in an established tank and watched them die one by one over the next couple weeks. There were no signs of disease; they just died. I attributed the loss to problems due to a weakened condition from importation. More showed up a few weeks later, but by this time I did what I always recommend but seldom do, I looked them up in a few of my books to find out more about them.

Corydoras barbatus is noted for being one of the largest Corys. They can get to five inches. It is also one of the few that is dimorphic. The males are darker having a lot of black marking on the head and front half of their bodies. They also have a row of bristles along their "cheeks" at the bottom edge of the gill covers. Males also have much longer pectoral fins, which can be seen from an early age. Females look like a large Pepper Cory.

Corydoras barbatus is a coastal form of Cory and at that time was coming from two areas. One a cool water environment near Rio de Janeiro where frost occurs sometimes during the winter. The second was a more upland region where more tropical temperatures could be expected. My original group came from the coast, so I probably killed them with too much heat. Armed with this information I invested in a second group. These I put in a lower tank that was running about 75 degrees. They survived and thrived, that is until the heater stuck and the tank went up to 90.

Having been burned twice in rapid succession, I put thoughts of barbatus on the back burner. Two people in the club were equally enamored of this fish and had bought stocks for themselves. Both bred them and were able to distribute some fry. I managed to get another small group. They died too.

A year or so later barbatus showed up again and I passed. It was hard but I was strong. Dan Cram was into a Cory phase and picked up some. He was having a lot of success

with Corys and this was one he wanted. He raised them to the nicest barbatulus I had ever seen, just like the pictures and at least four inches long, but for whatever reason he traded them in to Gary at Pets 'n Things. When I saw them, I nearly wet myself. They were gorgeous but I had no room so they stayed. By the way Gary also had taken some home and successfully raised a bunch of babies.

About two years ago some wild caught barbatulus arrived on the scene and I couldn't resist. I put them in the bottom 10-gallon tank closest to the corner of my fishroom and took out the heater. This tank would go as low as 70 degrees during the winter and only get up to about 75 in the summer. It was the best I had. I had a large sponge filter and tap water in this tank and slowly over the next few water changes added soft water, about 80 ppm TDS. They are still in that tank.

I had had them about a year last May when one day I noticed a spawn. I was elated. There were about 35 eggs. I would usually try to remove the adults and hatch the eggs in the tank where they were spawned but I had no place for the adults. Many Cory breeders scrape the eggs off the glass and hatch them in a separate container so I decided to try this. The eggs were fresh and sticky. I rolled them off the glass with my fingers, being as gentle as I could to move them to a specimen cup for incubation. They tenaciously stuck to my fingers. I'd roll one off and feel around and find it had just rolled higher up my finger. I am not noted for having a lot of patience with tedious tasks, so I won't go into the details of flicking sticky eggs off into a small specimen cup, but I'm glad there were no witnesses.

In spite of the extra agitation the eggs suffered, they all hatched. The group spawned again but I left them in the tank where they were eaten. The fry were kept in the specimen cup for 3 days when they hatched. I wanted to keep them in the cup until they were eating but it is hard to tell when a bottom dweller is freeswimming. I moved them into a bare 10 with a sponge filter after 4 more days. All the fry died. Luckily, the group was in a spawning cycle and spawned again at the beginning of June. I pulled 50 eggs this time and put them in a large specimen cup with aeration. I decided to keep them in the cup longer. Again, all the eggs hatched. These I kept in the cup for two weeks. They were eating and even growing. Every day I would exchange about 50% of their water with water from the parent's tank. At two weeks, I set up the bare 10 with 50% of the water from the parents' tank and about 10% fresh water.

I lost about half the fry. A partial success but an acceptable group was left for me to raise. These did well through the end of July and were nearly an inch long. I really wanted to turn them in for BAP points but there is no July meeting. I had about 25 fry, so I wasn't worried. Over the next couple weeks, I started to lose the fry; one by one they died. By the time of our August meeting, I had 4 fry left. Damn! Not enough for BAP.

They'll spawn again, I thought. They did. I watched them one evening as they spawned. As soon as a female placed her eggs on the glass, another female came over and ate them.

Advance to this June. I was feeding the fish and noticed a blur on the glass (I take off my glasses when I feed so I can see). I squatted down to inspect and there were about 30 eggs. This was a small spawn and I was tired so I left it alone. The next day after work, they were still there so I picked them off. About 20 eggs hatched. I left these in the cup for a week, until they were eating. I then transferred them to a two-gallon tank filled with water from the parent's tank. I did make one concession to Kevin Korotev, and turned up the sponge filter and added another air source to increase the current. I also had a small clump of Java Moss in the tank. There was no problem with the group

after the first week and there were 13 left. A week ago I lost four one day and I thought, not again. I did a water change and kept my fingers crossed. There are still 9 fry left, enough for BAP and the meeting is tonight. This wasn't a rousing success but at least I can now pass the adults to Kevin for further spawning. Good Luck.

Why Is It?

Dave Schieltz, Colorado Aquarium Society

Why is it?

- Your fish get ich when you gave your friend your last bottle of ich medicine.
- Your best fish jumps out when you leave the cover open.
- You buy 6 expensive fish and can only find 5 in the tank the next day...finding the 1 still in the bag.
- You find a female for that lone male you have and she kills him.
- The heater that sticks on is always on your favorite tank of fish.
- When someone talks you out of your spare male, the next day you find your good male dead for no apparent reason.
- When you forget to put chlorine remover in the tank it is always the most expensive fish that dies.
- A rock slide caused by your Cichlids kills your best Pleco.
- You are always one tank short no matter how many you have.
- You find fry from the latest and hottest new import and they all turn out to be males.
- You buy a pair at auction and the male kills the female on the way home. You knew you should have rebagged one to a bag before you left.
- You wait until the next day to strip a prized female and she is no longer holding.
- You accidentally put a batch of peacock fry in the wrong tank and suddenly they all look alike.
- That filter motor that is on its last leg quits when you take a weeks vacation.
- You go back to a shop to buy a fish you saw the night before and it is sold.
- You put fry in your hospital as you have no where else to put them and you have a sick fish the next day.
- You have an old fish that refuse to die, then dies when you are on vacation, plugs up the wet/dry filter and takes the whole tank with it.
- You need one more spawn for the next level in the breeders award program, and the air pump quits and all the eggs fungus.
- No matter how many times you check it, there is always one slide upside down when you give the lecture.

These are just some of the trials and tribulations that make our hobby so challenging and exciting. These things have actually happened to me over the years! If everything always worked out, I guess it would get boring... Dave

Glowing Green Fish Sold at Taiwan Market

Stephan Grauwels, Associated Press Writer

TAIPEI, Taiwan - (AP) - Their weird glowing green color makes them look like they've been swimming in a nuclear plant's spent fuel pond. But the zebra fish on sale in Taipei shops have an even stranger background: They're the latest in genetically modified fish, and their bodies contain DNA from jellyfish, which makes them shimmer in the dark.

Shopkeepers call them "Night Pearls." Some have nicknamed them "Frankenfish." Their makers at the Taipei-based Taikong Corp. use the less catchy name of "TK-1" and say they are the world's first genetically engineered fluorescent fish. They've been on the market in Taiwan, Japan, Hong Kong and Malaysia for about three months, said Bill Kuo, a spokesman for Taikong, which owns a chain of pet stores. Now the fish are getting ready to cross the Pacific and swim into the U.S. market this month.

Kuo says the company anticipated fears that the genetically modified animals might spread uncontrollably and harm the environment, so it made sure that they were unable to produce offspring.

In April, the company turned out 10,000 fluorescent fish, and that figure has been doubling every month since, Kuo said. Beginning in August, monthly production should stabilize at more than 100,000, Kuo said. So far, only the greenish TK-1 has been on sale. But next year, they should get the company of a red mate, the TK-2. Later, the two colors will be combined in the TK-3, Kuo said.

"The original zebra fish are all colorless," he said.

Not everyone is satisfied with the genetic engineering. "It must be really dark to see it," said Maria Hung, who sells the glowing fish at her Goldfish Family store in Taipei. At 600 New Taiwan dollars (US\$17.40) each, the fish don't come cheap. The goldfish in the next bowl cost only NT\$10 (US\$0.29) a piece, Hung said.

"Since I started selling the fluorescent fish last month, I haven't found a single buyer," Hung said. Taikong says its project is still in its infancy. "We spent NT\$100 million (US\$2.9 million) developing this fish," Kuo said, defending the relatively high cost for consumers. He also said admiring fluorescent fish in the dark is an acquired taste. "It's still a curiosity. We're covering new territory here," he said.

The same type of fish were also on sale at an Azoo store at the Asiaworld Plaza, one of Taipei's upscale shopping malls. The Azoo chain is part of Taikong Corp. The store attendant pulled a curtain to turn a corner of the shop dark. Then she switched on a blue light above the tank and the fish became visible, silvery bodies crowned by a greenish glow.

MEETING MINUTES

GENERAL MEETING - July 17, 2003

The meeting was called to order at 7:40 by Gary Lange

ANNOUNCEMENTS

The next Council Meeting is July 19th at Pat Tosie's office. The ACA Convention is July 24-27 in Cincinnati Ohio. CAFÉ will be having their auction on July 26.

SECRETARY

A motion to waive the minutes from the June meeting was made by Ed Millinger and seconded by Mike Hellweg. The motion passed.

TREASURER

A motion to waive the Treasurer's report was made by Mike Hellweg and seconded by Jack Berhorst. The motion passed.

EDITOR

Pat said the Darter is ready to be mailed, but can't go out until the Post Office audit items are complied with.

SHOW

Gary said that he still needs one more speaker.

AUCTION

The next auction is August 10, at the Stratford, and begins at 12:00. John Van Asch has seller sheets.

BAP

Steve Edie announced 6 submissions.

HAP

Mike Hellweg announced 13 submissions.

OLD BUSINESS

None

NEW BUSINESS

None

The program was a DVD of Blue Planet-Coral Reef. A motion to adjourn at 9:20 was made by Mike Hellweg and seconded by Diane Brown.

COUNCIL MEETING - July 19, 2003

Jack Berhorst called the meeting to order at 7:37. Those present were Jack Berhorst, Mike and Angela Hellweg, Pat Tosie, Gary Lange, Bob Buckles, Roy Brandhorst, Charles Harrison, Steve Edie, and John Van Asch. Guests were Patrick Tosie. The meeting was held at the office of Pat Tosie.

ANNOUNCEMENTS

The next Council meeting will be on August 23rd at the home of John Van Asch.

SECRETARY

A motion to waive the reading of the June minutes was made by Mike Hellweg and seconded by Pat Tosie. The motion passed.

TREASURER

A motion to waive the June Treasurer's report was made by Mike Hellweg and seconded by Gary Lange. The motion passed.

EDITOR

Pat Tosie said that the Post Office accepted our membership list. He said he will modify the MASI Membership application so that the information the Post Office needs is available.

SHOW

Gary Lange and Mike Hellweg will be going to the Stratford to discuss the Show with the banquet manager.

MASI has finally received the bill for the 2003 Show.

HAP

Mike Hellweg said that he is going to modify the HAP format to more closely match that of the BAP.

OLD BUSINESS

The Council discussed changes in auction splits and their effect on income, and also reviewed the breakdown of auction item prices. Pat Tosie made a motion that the first \$2.00 per item goes to MASI, with an 80/20 split above that, for the November auction.

It was seconded by Charles Harrison and the motion passed. A voice vote was called, with 5 yeas and 4 nays. Pat-Y, Bob-Y, John-N, Charles-Y, Gary-N, Mike-N, Roy-Y, Angela-N, Steve-Y.

The Council also discussed fundraising ideas. Charles Harrison's company will donate ink cartridge return/recycle fees to MASI from cartridges brought in by members. Krispy Kreme Donut cards can be purchased for \$2.50 each, with a minimum purchase of 100 cards. A motion to table this idea until more info was available was made by Mike Hellweg and seconded by Charles Harrison. The motion passed.

MASI can sell TFH subscriptions with a 25% commission going to the club. A motion to do this was made by Mike Hellweg and seconded by Pat Tosie. The motion passed. Gary Lange will undertake this project.

There was no interest in running concession stands at various major league sporting events in St. Louis.

NEW BUSINESS

Mike Hellweg suggested lowering the number of Council members due to smaller club membership. The by-laws would be amended to that at-large council members would equal 1 for every 20 general members, to a maximum of six. A motion to table this discussion until later was made by Charles Harrison and seconded by Steve Edie. The motion passed. Costs of printing and collating the Darter by MASI vs a commercial printer were discussed. Charles Harrison's company could print the Darter at a price of up to 65 cents, with MASI doing the collating and folding. A motion that the Jul-Aug-Sep Darter be printed by Charles Harrison's company and collated and assembled at the August Council meeting was made by Mike Hellweg. A second was made by Steve Edie and the motion passed. A motion was made by Mike Hellweg that MASI investigate the price of a folder for assembling the Darter, with Jack Berhorst polling the Council members with permission to purchase once the price is known. The motion was seconded by Bob Buckles and passed with 7 yeas and 2 nays. Gary Lange announced that Super Bowl will be held in November instead of October. A motion to adjourn at 10:40 was made by Angela Hellweg and seconded by Charles Harrison.

COUNCIL MEETING - August 21, 2003

Pat Tosie made a motion that MASI spend up to \$50.00 for a stapler to assemble the Darter. The motion was seconded by Gary Lange and passed.

GENERAL MEETING - August 21, 2003

Jack Berhorst called the meeting to order at 7:40.

ANNOUNCEMENTS

The next Council meeting is August 23rd at Pat Tosie's office, hosted by John Van Asch. The TCTFS auction is September 13th in Peoria. Gary Lange is selling TFH subscription renewals.

SECRETARY

Angela Hellweg read the minutes from the June 19th meeting. A motion to approve was made by Mike Hellweg and seconded by Ron Huck. The motion passed. A motion to approve the July 17th minutes was made by Pat Tosie and seconded by Kathy Deutsch. The motion passed.

TREASURER

A motion to waive the reading of the Treasure's Report was made by Mike Hellweg and seconded by Bob Buckles. The motion passed.

EDITOR

Pat Tosie said that he had no articles for the Oct-Nov-Dec Darter, but Steve Edie said that he had sent Pat many articles.

SHOW

Gary said that the Show banquet will be held at the Stratford instead of off-site. He also said that Superbowl will be in November this year.

AUCTION

The next auction will be November 23rd.

ADVERTISING

Mike said he had two more advertisements for the Darter.

OLD

None

NEW

The MASI website is back up. The program for the evening was a presentation about ponds, given by Gary Lange. A motion to adjourn at 9:10 was made by Pat Tosie and seconded by Diane Brown.

COUNCIL MEETING - August 23, 2003

Jack Berhorst called the meeting to order at 7:47. [The meeting was held at Pat Tosie's office, hosted by John Van Asch. [Members present were Mike and Angela Hellweg, Klaus Bertich, Charles Harrison, Pat Tosie, Jack Berhorst, Roy Brandhorst, Gary Lange, Bob Buckles, John Van Asch, and Steve Edie. [Guests were Kathy & Steve Deutsch, Michele & Daniel Berhorst.

ANNOUNCEMENTS

The remainder of the Council meeting schedule was set as follows:
Sep 20th-Steve Edie
Oct 25th-Klaus Bertich
Dec 6th-Mike & Angela Hellweg
Jan 17th-Gary Lange
Feb 21st-Jack Berhorst
Mar 27th-Bob Buckles
Apr 17th-Charles Harrison (Pat Tosie's office)
May 22nd-Roy Brandhorst

SECRETARY

Angela Hellweg read the minutes from the June 21st meeting. [A motion to approve was made by Bob Buckles, and seconded by Mike Hellweg. [The motion passed. [A motion to approve the July 19th minutes was made by Pat Tosie and seconded by Mike Hellweg. [The amended minutes passed. [A motion to approve the Aug 21st minutes was made by Klaus Bertich and seconded by Mike Hellweg. [The motion passed.

TREASURER

Klaus Bertich read the Treasurer's Report from July 21st to Aug 23rd. [A motion to approve the report was made by Pat Tosie and was seconded by John Van Asch. [The motion passed. [

EDITOR

Pat said he is updating the council & committee page in the Darter.

AUCTION

John said he received a complaint about the \$1.00 item donation rule. [The auction was not as successful due to less advertising.

ADVERTISING

Mike said that he has new shops participating in advertising.

WEB

The site is up and running again. [Michele said she will be updating it soon. [A motion was made by Charles Harrison that the MASI domain name be registered in a MASI members name. [The motion was seconded by Gary Lange and passed.

BAP

Steve said that he has a tally of members lifetime totals, and some members are owed plaques.

HAP

Mike said that he still needs to add non active members electronically.

FISH

RAISING

It was decided to cancel this fish raising contest due to lack of a chairman. [The position remains open.

MEMBERSHIP

Kathy said she tried to contact non renewed members. [Some stated that they did not feel welcome at the General meeting. [She said she will try to introduce new members to those who can answer any questions they may have. [Renewal information will be in the next Darter. [Kathy will send out postcards in Feb to those who have not renewed. [Kathy also said she needs some new member packets made up. [It was suggested that an informational flyer be put in shops with a MASI membership form.

OLD

BUSINESS

Steve Edie made a motion to reopen the auction rules discussion. [It was seconded by Mike Hellweg and passed. A motion was made by Steve Edie to rescind the previous July vote regarding the auction splits. [The motion was seconded by John Van Asch and passed. The FORC meeting will be Aug 28th at Klaus Bertich's home at 7:00. Gary said that MASI made \$123.25 from selling TFH subscriptions. Mike said that the sale of Randy Ison's fish room contents netted \$1470.00 for the club. A motion was made by Mike Hellweg to extend Randy Ison's MASI membership for 2 years, and to purchase \$250.00 worth of gift certificates as a thank you for his donation. [The motion was seconded by Pat Tosie and passed. Jack thanked Mike for doing the work of tearing down Randy's fishroom. Klaus said the AFM is up for renewal. [He will find out when our subscription ends.

NEW

BUSINESS

Steve said that there were problems with duplicate seller numbers at the last auction. Klaus wants sellers to put the same fish name on the seller sheet and on the labels so that they match

each

other.

A motion to adjourn at 10:33 was made by Mike Hellweg and was seconded by Charles Harrison.

GENERAL MEETING - September 18, 2003

Jack Berhorst called the meeting to order at 7:35.

ANNOUNCEMENTS

The next Council meeting is September 20th at the home of Steve Edie. Rusty Wessel will be the speaker at the October General meeting.

SECRETARY

Angela Hellweg read the minutes from the August 21st meeting. A motion to approve was made by Pat Tosie and was seconded by Mike Hellweg. The minutes passed.

TREASURER

Klaus Bertich read the Treasurer's Report from July 21st to August 23rd. A motion to approve was made by Pat Tosie and was seconded by Ed Millinger. The motion passed.

BAP

Steve Edie said that there are some members who need to write articles in order to receive their awards.

HAP

Mike Hellweg announced that he is the first MASI member to reach 2000 points.

OLD BUSINESS

Charles Harrison reminded members to bring their empty toner cartridges to the General meetings. His company will donate the value of the empty cartridges to MASI.

NEW BUSINESS

Steve Edie thanked Charles Harrison for his help in the printing of the Darter, and helping the club save on printings costs. For the evening program, Gary Lange passed out samples of APR and announced a social hour with refreshments. A motion to adjourn at 9:37 was made by Mike Hellweg and was seconded by Diane Brown.

COUNCIL MEETING - September 20, 2003

Gary Lange called the meeting to order at 7:40 at the home of Steve Edie. Those present were Steve Edie, Roy Brandhorst, Mike & Angela Hellweg, Charles Harrison, Gary Lange, Pat Tosie, Bob Buckles, Klaus Bertich, and John Van Asch. Guests included Alice & Rick Tinklenburg, Ed Millinger, and Diane Brown.

ANNOUNCEMENTS

The HAAS Symposium and Auction is Oct. 11th & 12th.

The GCCA All Species Auction is Sept. 21st.

The next Council meeting is Oct 25th at the home of Klaus Bertich.

SECRETARY

Angela Hellweg read the minutes from the Aug meeting. A motion to approve was made by Pat Tosie and seconded by Mike Hellweg. The amended minutes passed.

TREASURER

Klaus Bertich read the Treasurer's report from Aug 24th to Sept 22nd. A motion to approve the report was made by Mike Hellweg and seconded by Angela Hellweg. The motion passed.

EDITOR

Pat needs article for the Darter by Oct 1st.

SHOW

Gary is still looking for one more speaker. He also asked Pat to find out which elementary schools are near the Show site.

ADVERTISING

Mike said he will have Auction flyers in shops by Nov 1st.

HAP

Steve is still working on finding out who is owed plaques.

BAP

Mike said he now has non-active members listed electronically.

EXCHANGE

Steve said he has not received responses from many other clubs regarding reprinting of articles.

MEMBERSHIP

Pat said that MASI now has 70 members.

WEB

Steve asked about expanding commercial links on the website and whether we need to have a disclaimer regarding endorsement of those sites. Pat said he will have the MASI domain name registered to him.

OLD BUSINESS

Gary said that the TFH subscription money will be coming soon. Mike reported that he has done the audit of fiscal year 2003. The expenses and receipts were well documented and there were no irregularities.

NEW BUSINESS

Mike Hellweg made a motion to remove Joe Moreno from Council due to excessive absences. The motion was seconded by Pat Tosie and passed. Jack Berhorst will appoint a member to take his place. Ed said that Bruce Mayhew offered to fix the men's toilet at Dorsett Village Baptist Church's youth center. A motion to spend up to \$50.00 on parts to do this was made by Pat Tosie and was seconded by Bob Buckles. The motion passed. Charles mentioned looking into fixing the lights at Dorsett also. Mike said that Rick Tinklenburg suggested MASI nametags that showed members levels in BAP and HAP. The FY04 FORC Report was reviewed and approved by Council. A motion to adjourn at 10:15 was made by Charles Harrison and seconded by Mike Hellweg.

Career BAP Point Totals (Active Members in Bold)

Breeder	Points		
	□	Kelley Richard	182
		Schrader Joseph	181
Tosie Pat	2733	Higgins Ed	175
Scott Peggy	2674	Viviano Mary	175
Miller James	1804	Huels Robert	173
Thomas Reet	1787	Lovins Jim	160
Hellweg Mike & Angela	1435	Brodack Jim & Susan	146
Wilhelm Ralph	1261	Skouby Curtis	146
Lange Gary	1169	Taylor Mike & Sherry	140
Harrison Charles & Sue	1030	Huber Mike	138
Walker Harold.	727	Zesch Charles	131
Walker Derek.	725	Christensen Chad	130
Daly Marc & Kathy	585	Raymond Mike & Joe	130
Scott Warren	571	Allen John	125
Tinklenberg Rick	505	Deutsch Steve & Kathy	125
Crabtree Rich	468	Birch Jeffrey	124
Godman Blenda	457	Tosie Kathy	121
Ketts Garry	452	Dyn Chuck	120
Thale Jim	451	Rall Ted	120
Fischer Ray	435	Anderson Alfred	115
Millinger Ed	414	Tosie Patrick	115
Roberts Noel	404	Hoppe Charles	112
Winkler Rick	385	Estes Kevin	105
Grayer Rich	384	Hueneberg Ralph & Lalita	90
Mueller Jim	368	Peters Tim	82
McPhee Peter	349	Blair John & Robyn	75
Yaekel Jim & Rosemary	272	Hirsch Johnya Paul	73
Toenges Carl	260	Winkler Raymond	72
Ison Randy	255	Vieth Ken	65
Reed Terry	252	Berhorst Jack & Michele	60
Mayhew Bruce	250	Cotton Dwayne & Phyllis	60
Cotterel Fred & Sue	233	Edie Steve	60
Lenau Charles & Mary Ann	233	Ornsby Matt	60
Beck John	232	Tracer	60
Akers Larry	223	Zook Chuck & Claudia	55
Hoermann Daniel	220	Kelly Steve	52
Reich Bob	219	Brazel Don & Elizabeth	50
Henning Craig	204	Heller Jack	45
Furtwengler Charlotte	200	Heltzel Dennis	45
Van Asch John	200		

Gable Rob	42	Rickmann Eric & Beth	15
Egan Sue & Tom	40	Tosie Christine	15
Crane Heidi & Paul	36	Williams Ron & Linda	15
Hogan Mike	36	Yerkes Pam	15
Bohn Angela	35	Cox Tom	12
Browne Marie & Family	35	Brazil Chris	10
Granger Jamie	35	Dierker Mark	10
Hancock Scott	35	Frese John	10
Larocca Charles	35	Mueller Bernard	10
Tosie Nicole	34	Mueller Scott	10
Lee Mickey	30	Pack Bill	10
Stratmann Rich	30	Pfister Michael	10
Albright Larry	25	Roberts Sheila	10
Green Maureen	25	Schmerber Manuel	10
Hittler John	25	Schnur Tom	10
Huels Trevor	25	Schuff David	10
Moore Jamie	25	Stolte Matt	10
Springer Mike	25	Tainter James	10
Crabtree Warren	20	Thomas Keith	10
Julian George	20	Wester Curt	10
Lynch Kelly	20	Winkelmann Christopher	10
McKinney John	20	Frillman Chris	5
Cotterell Beth	16	Pilarcik Elizabeth	5
McMillian Tony	16	Pilarcik James	5
Bogacki James	15	Schafer Matt	5
Buckles Bob	15	Schierding Vernon	5
Corbett Jim	15	Storms Albert	5
Ferrario Sue	15	Thompson Robyn	5
Garrison Chris	15	Tosie Megan	5

Re-opening the fish room

By Kathy Deutsch

The fish were down there: a pair of convicts, a tiger pleco, the big tanks of frontosas and synos. In four tanks, they had been surviving since April with a water change a month and food a few times a week. The fish upstairs had their usual decent care, with the blue-eyed pleco being babied by his dotting human. But the downstairs, well, that was the fish room. And I wasn't sure if I could handle a fish room any more. It was guilt that made me turn on all the lights that Friday in July. I was going to break down the tanks and give away the fish.

When I looked at the convicts, my resolve fell away. The convicts had fry. Nice, healthy babies were teeming around mom and dad. Once a fishkeep, always a fishkeep. I rolled up my sleeves and started the rehabilitation of the fish room..

Neglected fish cannot have conditions changed suddenly. I did 10-20 percent water changes on all the tanks, using a gravel vac to get the worst of the mulm. The fish were fortunate that the heaters hadn't popped. I checked and replaced the ones that concerned me. I got lights going over all the tanks.

The reduced feeding schedule was a blessing in disguise. Since the fish weren't eating much, they weren't producing much waste. The filters were bad, but working (God bless box filters and power filters). Since I had just done a water change, I waited two days to clean filters.

The toughest part was making the resolution to care for the fish as best I could. I had been neglectful. It was pure luck, or maybe the fish guardian angel, that kept everyone healthy. Daily feeding, twice a month water changes, vacuuming, and filter cleaning were going to be the routine once again. Most importantly, I resolved to really LOOK at the fish twice a day, and touch each tank to determine temperature. Observation was the only way to know if the animals were okay.

Having fish upstairs was one thing: it meant we kept fish. Having a fish room was the commitment to the hobby. Those convict fry gave me what I needed to rededicate myself to the avocation I love.

2003 MASI MEMBERSHIP ROSTER

Jim & Sue Amsden(L)
1502-04 Jeffco Blvd.
Arnold, MO 63010
636-296-1711

Al Andersen(*)
602 Alaska St.
Staunton, IL 62088-1605

Terry Atherton(*)
8129 Kingsbury Blvd.
Clayton, MO 63105
314-721-4088

Jack & Michele Berhorst()
7040 Circleview Drive
St. Louis, MO 63123
314-353-3418

Klaus & Anna Bertich()
9525 Caravan
St. Louis, MO 63126
314-849-2164

Roy J. Brandhorst(*)
14343 Sunswept Ct.
Florissant, MO 63033
314-838-8093

Scott Brandt(*)
53 Queens
Florissant, MO 63034
314-838-3928

Jim & Susan Brodack()
3827 Kentucky Derby Drive
Florissant, MO 63034
314-837-5234

Diane Brown(\$)
5677 Waterman #21
St. Louis, MO 63112
314-361-4193

Bob Buckles()
10623 Geanlee Drive
St. Louis, MO 63123
314-849-0587

Scott Bush(*)
502 Kimberly Lane
St. Peters, MO 63376
636-397-4242

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Cyperaceae (cyperus)

Maureen Green

For years, I've seen pictures and read descriptions of plants called cyperus in my house plant books and have searched greenhouses and plant stores for them. It wasn't until I got into water gardening, that I found out that you had to go to a specialty store, namely for water plants to locate one.

□

Cyperus are both tropical (ex: cyperus papyrus) and hardy (ex: cyperus longus "Sweet Galingole") are found all over the world.

□

For propagation, you can divide them by cutting through the root ball with a sharp knife or cut off the flower head with a little bit of stem attached, trim back the bracts by half their length and either float in water or put it in a dish of soil or sand and keep moist. When the roots have developed, pot it up in soil. You can also bend a stalk down (still attached to the plant) into water until another plant develops.

□

I usually discard the parent plants at the end of summer and pot up the babies into plastic cups, keep them on the window sill all winter and barely moist. They seem to go into semi-dormancy. I don't fertilize them until the end of March of the next year. I use an aquarium fertilizer then. By the end of April I put them outside in a larger pot and fertilize them with a lily tab. They grow fast.

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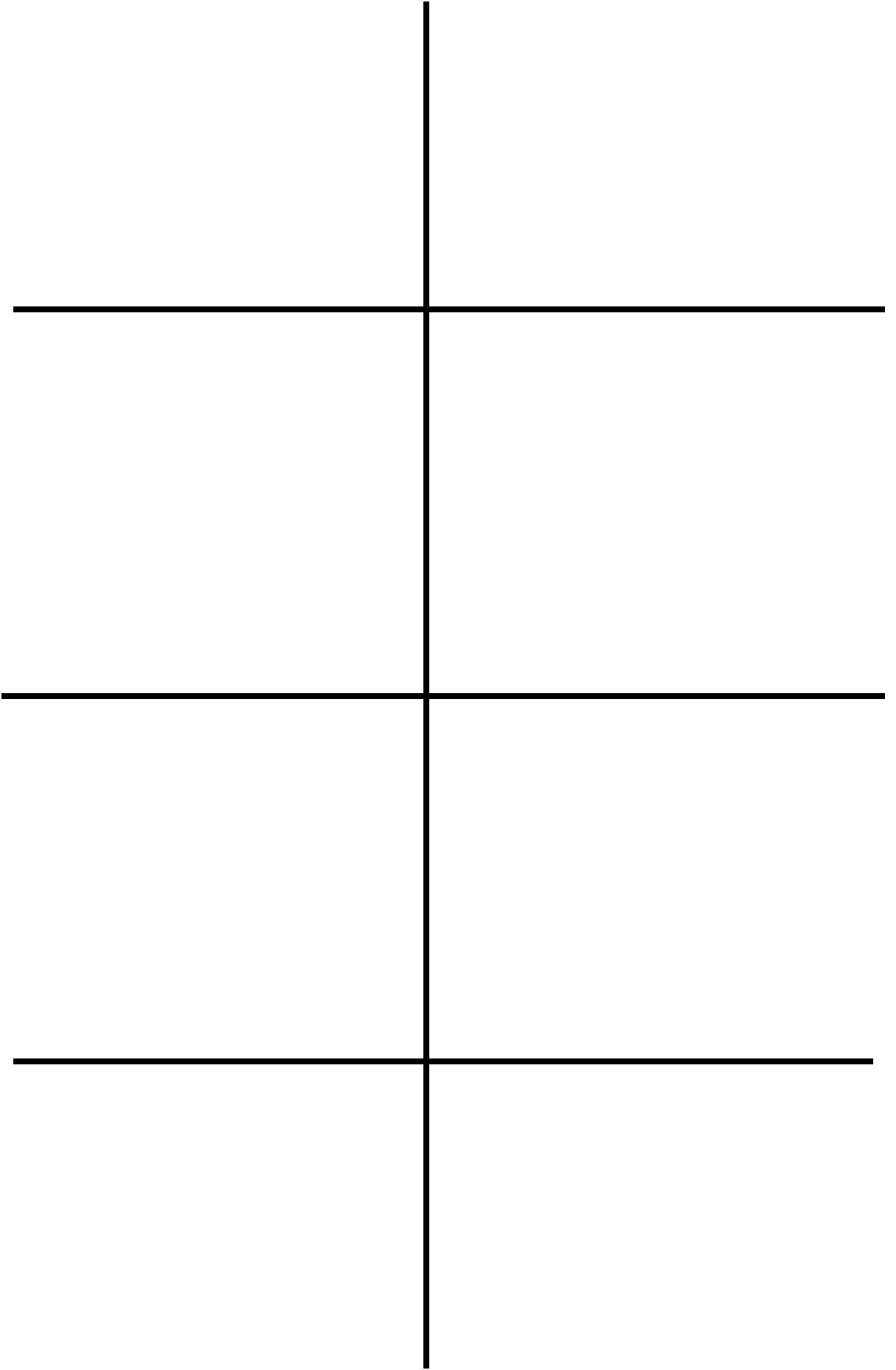
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