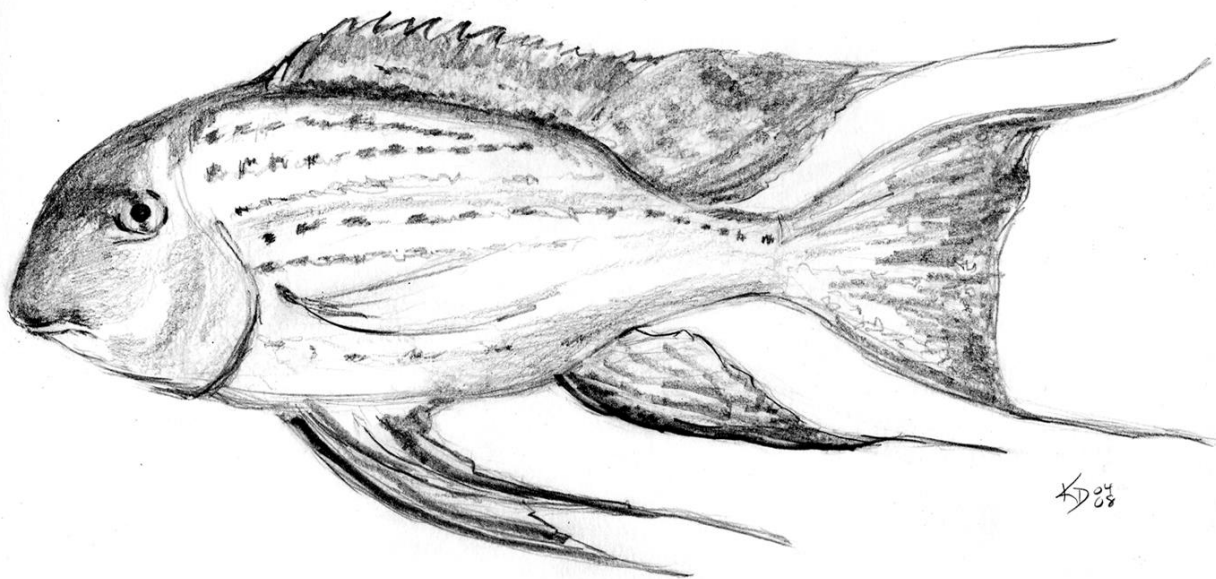


The Darter

May - June 2008

Best Fish in Show - 2008



Gymnogeophagus altifrons - Ed Millinger

Missouri Aquarium Society, Inc

St. Louis, Missouri

2007-2008 MASI OFFICIALS

PRESIDENT:

Mike Hellweg
511 Sunward Drive
O'Fallon, MO 63368
636-240-2443
mhellweg511@charter.net

VICE PRESIDENT:

Gary Lange
2590 Cheshire
Florissant, MO 63033
314-837-6181
gwlange@sbcglobal.net

TREASURER:

Steve Edie
5 Green Ridge Ct.
St. Peters, MO 63376
636-922-4232
sredie@charter.net

SECRETARY:

Angela Hellweg
511 Sunward Drive
O'Fallon, MO 63368
636-240-2443
pugdog64@yahoo.com

EXECUTIVE COUNCIL:

Roy Brandhorst	Skipperoy4@juno.com	314-838-8093
Tammy Clemente	wazzup63011@aol.com	314-603-7322
Charles Harrison	csharrison@inkmaker.net	314-894-9761
Mark Theby.	markrehabber@yahoo.com	314-428-3536
Pat Tosie	pattosie@yahoo.com	636-225-7625
Andy Walker	awalker02@sbcglobal.net	636-443-1440

COMMITTEES:

Advertising & Promotions	Mark Theby	314 428-3536
Auction Chairman	John Van Asch	618-277-6165
Breeders' Award Program	Steve Edie	636-922-4232
Corresponding Secretary	Patrick A. Tosie, Sr	636-225-7625
Editor	Steve Deutsch	314-741-0474
editor@missouriaquariumsociety.com	9 Old Jamestown Ct. Florissant, MO 63034	
Educational Outreach	Bart Kraeger	314-443-1038
Exchange Editor	Steve Deutsch	314-741-0474
Fish Raising Contest	Bob Buckles	314-394-0587
Horticultural Award Program	Mike Hellweg	636-240-2443
Historian	Klaus Bertich	314-849-2164
Librarian	Dave Rush	314-291-8932
Membership	Kathy Deutsch	314-741-0474
Monthly Bowl Show	OPEN	
Points Tabulator	Ed Millinger	573-883-9943
Postman	Gary McIlvaine	314-352-3334
Printer	Charles Harrison	314-894-9761
Refreshments	Roy Brandhorst	314-838-8093
Show Chairman	Gary McIlvaine	314-352-3334
Social Events Coordinator	Cory Koch	314-220-9073
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Web Mistress	Michele Berhorst	314-894-5543
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MASI's official web page: www.missouriaquariumsociety.org
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Places to Be / Things to See

SATURDAY June 14, 2008

MASI picnic at Jim and Brenda Thale's, 2:00
Executive Council following picnic

THURSDAY June 19, 2008

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

SATURDAY June 28, 2008

Executive Council, hosted by Roy Brandhorst

THURSDAY July 17, 2008

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

SUNDAY August 17, 2008

Auction @ the Stratford Inn

THURSDAY August 21, 2008

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

THURSDAY September 18, 2008

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

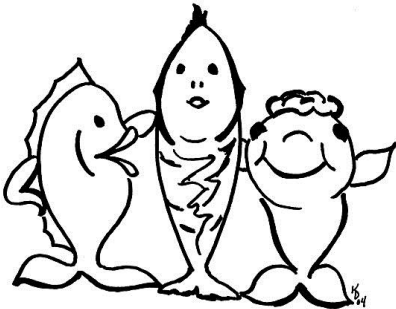
SUNDAY October 5, 2008

Swap Meet @ the Stratford Inn

THURSDAY October 16, 2008

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

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, kathy@skdeu.com, or 9 Old Jamestown Ct. Florissant MO 63034

Presidential Preamble

By Mike Hellweg

With this column, I come to the close of another term as your President. I've enjoyed the past year. Thanks to all of you for making my job so enjoyable and to all of our volunteers who help make the society run so smoothly. Speaking of running smoothly – in spite of the construction challenges over the show weekend, everything turned out well and everyone seemed to be enjoying themselves.

Wow! What a great show weekend! I know that I saw most of you, but I hope nearly everyone got a chance to come by and at least visit for part of the weekend, if not the entire weekend. The speakers were great, the vendors were great, the banquet was fun, and the auction was fantastic!

Congratulations to Gary McIlvaine and his show committee for an excellent job on the Show. Our 2008 show was one of the largest in recent memory, with nearly 200 entries from more than two dozen entrants! Well done everyone. Setup and teardown were done with precision and were completed in near record time. The Sunday auction was also very good. We had a lot of donations to help offset the cost of the show, which means that we should wind up coming pretty close to break-even, our goal for every year.

It's time for new volunteers to step forward to volunteer for next year's show, and Executive Council, as well. Voting is only a month away. Let Gary Lange know if you would be interested in running for Council or for Office. I understand our Treasurer/BAP Chair/Cares Chair/ACA BOD/Auction Cashier/PR guy/Man about town Steve Edie would like to take a break from the Treasury (I can't imagine why!), if anyone is interested please contact either me or Steve and we can fill you in on what is needed. It's more than most other positions in the society, but not as overwhelming as you might think (unless of course you also want to try and do 4 other jobs!).

We are also beginning to investigate cleaning up our Auction system so that checkout and reconciliation can both be complete more rapidly with a much smaller amount of manual labor. Bart Kraeger, Andy Walker, Steve Edie, and I will be working on this over the next few months. We're always open for more input, if anyone is interested.

Our next social event is the Picnic, hosted by Jim and Brenda Thale. Please look for more details below, with times and a phone number so you can call them and let them know what you'll be bringing for the BBQ. I hope we see you all there! Families are welcome, too!

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

MASI Annual Picnic

Once again MASI will be having their annual picnic at the home of Jim and Brenda Thale. It will be on Saturday June 14, 2008 from 2:00 PM until it's over. Please bring a side dish fit for a hamburger, hotdog, bratwurst picnic! Sign up for side dishes at the May General Meeting, or call Jim and Brenda at (636) 343-8004. Maps will be available at the May General meeting as well. Jim and Brenda always make a good time of this, and the picnic is followed by the Executive Council meeting, which is open to all interested visitors. Come early, come hungry, and have a good time talking to your MASI friends in a relaxed atmosphere. Rain date, should it be needed, is June 21.

MASI 2008 Show Results

188 Entries from 25 Entrants

No.	CLASS	Name	Placement
1	AQUASCAPING		
		Andy Walker	Honorable Mention
		Derek Walker	Third
		Harold Walker	Second
		Derek Walker	First
2	NOVELTY		
	Black & White Tank Theme	Laura & Dave Wagner	Third
	It's a Small World	Gary Lange	Second
	Baseball	Harold Walker	First
3	DOMESTIC & FANCY FINNED EGGLAYERS		
	Black Angel	Gary McIlvaine	Third
	L.F. White cloud mountain Minnow	Joseph Gephart	Second
	L.F. Rosy barb	Joseph Gephart	First
4	DOMESTIC & FANCY FINNED LIVEBEARERS		
	X. Hellerii Swordtail - Female	Dwayne Peters	Third
	Poecilia sphenops Black Molly	Laura & Dave Wagner	Second
	X. Helleri M red eye red	Rick Tinklenberg	First
	BEST LIVEBEARER		
5	GUPPIES		
	Full Black Guppy	Gary McIlvaine	Second
	Black Guppy	Gary Lange	First
6	BETTA SPLENDENS		
	BETTA SPLENDENS	Susie Amsden	Third
	BETTA SPLENDENS	Susie Amsden	Second
	Red Betta	Gary Lange	First
7	GOLDFISH		
	Fantail Goldfish	Klaus Bertich	First
8	WILD LIVEBEARERS		
	Limia Vittata	Rick Smith	Third
	Xiphophorus nezahualcoyotl	Gary Lange	Second
	Nomorhamphus liemi M	Rick Tinklenberg	First
	JUDGES AWARD FOR THE PAIR		
	Nomorhamphus liemi F	Rick Tinklenberg	

9	GOODEIDS		
	Characodon lateralis	Gary McIlvaine	Third
	Characodon lateralis	Jim Miller	Second
	Skittia multipunctatus	Jim Miller	First
10	CICHLIDS NEW WORLD		
	Thorichthys blue mixteco	Rick Tinklenberg	Third
	Amphilopius labiatus Red Devil	Laura & Dave Wagner	Second
	Gymnogeophagus altifrons	Ed Millinger	First
	BEST CICHLID	BEST FISH IN SHOW	
11	CICHLIDS OLD WORLD		
	Iodotropheus sprengerae Rusty	Laura & Dave Wagner	Third
	Limbochromis Robertsii M	Rick Tinklenberg	Second
	Limbochromis Robertsii F	Rick Tinklenberg	First
12	DISCUS		
	Discus - Red Melon	Cory Koch	Third
	Discus - White w/Red stripes	John Stollhans	Second
	Discus - Red Striped	Cory Koch	First
13	ANABANTOIDS		
	Ttrichogaster leeri leeri gourami	Dwayne Peters	Third
	Betta albimaeginata Male	Derek Walker	Second
	Colisa chuna Honey Sunset Gourami	Ron Huck	First
	BEST EGGLAYER		
14	CHARICINS		
	Popetela tetra	Jim Miller	Third
	Head & Tailight Tetra	Rick Smith	Second
	Hyphessobrycum Erythrotigns		
	Bleeding Heart Teta	Ron Huck	First
15	CYPRINIDS		
	Giant Danio - Female	Rick Smith	Third
	Rhombo barb - female	Mike Hellweg	Second
	Giant Danio - Male	Rick Smith	First
16	CATFISH ARMoured		
	Megalechis thorcata Spotted hoplo	Phillip Newell	Third
	Corydonas stenbai	Derek Walker	Second
	Corydorus aeneus	Ron Huck	First
17	CATFISH ALL OTHER		
	Gold Nugget Pleco	Gary McIlvaine	Third
	Synodontus schoutedeni	Jim Miller	Second
	Albino Bristlenose - Male	Dwayne Peters	First
	BEST CATFISH		

18 KILLIES OLD WORLD		
Aphyosemion striatum	Jerry Jost	Third
Aphyosemion riggenbachi	Charles Harrison	Second
Aphyosemion australe	Jerry Jost	First
19 KILLIES NEW WORLD		
Rivulus uroflammeus	Jerry Jost	Third
Fundulus cingulatus	Mike Hellweg	Second
Rivulus xiphidius	Charles Harrison	First
20 ALL OTHER FISH		
Melanotasnio pracex Neon Rainbow	Steve Hoffman	Third
Danio hysingon M	Rick Tinklenberg	Second
Pseudomugil furcatus	Gary Lange	First
21 AQUATIC CRITTERS		
Amano Shrimp - judge female	Gary Lange	Third
Cherry Shrimp - judge red female	Gary Lange	Second
Zebra snail	Gary Lange	First
22 TRUE AQUATIC PLANTS		
Cryptocoryne aponogetafolia	Gary Lange	Second
Swordplant	Gary Lange	First
23 PHOTOGRAPHY		
"Gold australe and the Fruitfly"	Gary Lange	Third
"Cichlid Print"	Gary Lange	Second
"I Like Worms"	Gary Lange	First
24 ARTS & CRAFTS		
Male Betta	Mike Hellweg	Second
Cichlids and Loach	Mike Hellweg	First
25 COLLECTIBLES		
Boy Watches his fish	Jim Thale	Third
Framed Album Cover	John Van Asch	Second
Beldt's Swordtails	Mike Hellweg	First
26 WHITE ELEPHANT		
Bronze Goldfish	Jim Miller	Third
Fish Bottle	Jim Miller	Second
Goldfish Clock	Jim Miller	First

Best Cichlid and Best of Show
Gymnogeophagus altifrons - Ed Millinger



Judges Award - Rick Tinklenberg

Best of Show Discus - Cory Koch



Ralph Wilhelm Outstanding Catfish
Dwayne Peters

Best Egglayer
Ron Huck



Reet Thomas Outstanding Livebearer
Rick Tinklenberg



**Member of the Year
John Van Asch**



**Junior Member
of the Year
Evan McIlvaine**



**Stuart Grant Conservation Fund
Check Presentation**



Points Update

By Ed Millinger

Here is an update that is current through the annual show auction. Please keep in mind in order to win the show championship you need to enter the monthly bowl show at least five times. So even if you trail someone who scored well in the annual show they might not qualify if they are not active in the monthly bowl show, so keep bringing those fish every month. You must have earned at least three points to be included in this list. It is important to print your name at the meetings so I can correctly spell it.

Your points tabulator, Ed Millinger.

Name	Service Points	Show Points	Name	Service Points	Show Points
Jim and Sue Amsden		15	Andrew Matheson	4	
Valerie Bauer	4		Evan McIlvane	12	
Jack Berhorst	12		Gary Mcilvane	46	26
Michele Berhorst	8		Jim Miller	3	90
Klaus Bertich	3	19	Ed Millinger	22	28
Roy Brandhorst	28		Phillip Newell	18	5
Bob Buckles	17		Bob Newton	8	
Pam Burton	3		Dwayne Peters	14	30
Scott Bush	18		Brad Riley	9	
Eugene Caldwel	6		Dave Rush	12	
Tammy Clememnte	19		John Stolhaus	1	10
Kathy Deutsch	20		Rich Smith	11	38
Steve Deutsch	41		Jim Thale	15	5
Steve Edie	39		Mark Theby	20	
Marlon Fellman	13		Rick Tinklenberg	5	65
Joe Gephart		25	Pat Tosie	16	
Charles Harrison	27	27	John Van Asch	27	25
Sue Harrison	9		Laura Wagner	23	
Mike Hellweg	64	60	Dave Wagner	3	
Angela Hellweg	16		Laura and Dave Wagner		45
Jack Heller	4	7	Derek Walker	5	40
Steven Hoffman		5	Harold Walker	5	25
Ron Huck	17		Andy Walker	27	2
Jerry Jost	9	29	Bill Willingham	3	
Cory Koch	13	30	Norb Wright	11	
Bart Kraeger	30		Jim Yaekel	6	
Gary Lange	36	150	Rose Yaekel	11	
Tony McMillan	6				

Tricks for Seeds

By Derek Walker

Over the past year I have had great success in getting seeds from my aquarium plants. Some people think it's too hard to get a seed from a plant. I believe that getting a flower is harder than a seed.

The process that I use to get my plants to flower is simple. I start by leaving the hood open to allow the water to evaporate about two inches. Once the plant starts growing above the water I raise my light fixtures. I never let the plant touch the water once it's out of the tank. It can take a couple of weeks to see a flower bud, but it's well worth the wait. As the flower opens, I begin to self-pollinate the flower. There are a few techniques that I use. I found out that the best pollinator is a camera brush with a squeeze blower, however they are costly to purchase. One alternative is very soft tip paint brush that you can buy at any hobby shop. Another item that is cost efficient and effective is the Marabou duck feather. When the flower opens I use one of the three objects to brush the flower. I repeat this process two to three times a day.

Now that pollination is complete and flower is died off, you will need to wait. I found that some flowers show signs of fruits (seeds) right away and others don't show signs at all. If your flowers do not show signs of fruit, let your flower fall off and rot. You will see the seeds either floating on the water or they will sink to the bottom. If you don't see any seeds one of two things may have happened. It is possible that you did not pollinate the flower good enough or your plant is not a self-fertile plant. There is no way to tell if the plant is self-fertile. If you are not having any luck getting any seeds make sure you save some pollen from that plant. You can always buy a plant from a different place and use the pollen on that plant. Make sure you place the tool you use in a bag and label it. I like to label mine with the type of plant, who I bought it from, and the location where the plant was purchased. This way I know where to look for the same kind of plant. You don't want the next plant from the same gene family.

Seeds can be a little tricky to start. The seeds from the rotting flower that is left in the tank almost sprout in about a week. Make sure if you have fish and snails in the tank you watch the seeds really well or collect some. The fish and snails will sometimes eat on the seeds. If I collect seeds I like to place them in little tubs and place them under light. It seems they grow much quicker when I do this. If you have seeds that don't want to sprout, I would use Mike Hellweg's freeze out method. Mike let me know about this when I had trouble with my cattail seeds. Basically you are just making the seed winter for a few days in your ice box. Pull the seeds out and place it in a warm tank and wait for them to sprout. I did this twice and both times it worked, but both plants sprouted in the spring when the weather got warmer. This was a great idea from Mike and I thank him. My last method is an old grade school science project. I take paper towel and line the inside of a glass jar with water. I place the seeds between the paper towel and the jar then I close the lid and wait a couple of days. It seems to sprout the seeds as well.

I hope with these tips more people will be able to turn in seeds.

Club Hopping

Steve Edie

May 23-25 - Chicago: Greater Chicago Cichlid Association – Cichlid Classic

May 23-25 – NY: American Killifish Association – Annual Convention

Jul 17-20, 2008 – Atlanta, GA: American Cichlid Association – Annual Convention

Aug 31 - Indianapolis: Circle City Aquarium Club – Auction

Sept 19-22 – IA: Midwest Cichlid Association – Annual Convention

Oct 5 - St Louis: Missouri Aquarium Society – Swap Meet

Oct 16-19, 2008 – Laurel, MD: All-Aquarium Catfish Convention – Convention

Nov 13-16 – Atlanta: Aquatic Gardeners Association – Annual Convention

Nov 16 - St Louis: Missouri Aquarium Society – Auction

Nov 21-23 – Cleveland: Ohio Cichlid Association – Cichlid Extravaganza

Jul xx, 2009 – Cincinnati, OH: American Cichlid Association – Annual Convention

Member Classifieds

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

Thiosulfate crystals (Chlorine Remover) \$3.00 a half pound
OTO double strength Chlorine/Chloramine test kits - 4 ounce - \$12.50
Flubendazole, 5% powder 10 grams \$5.00, 25 grams - \$20.00
Lavamisole HCl Powder - 5 grams treats 100 gallons \$10.00
Methylene Blue 5% solution (2 ounces) \$12.75
Acriflavine Concentrate (4%) solution, 2 ounces \$12.70

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

A Planted Tank Setup for the Beginner

By Harold Walker

Setting up a planted aquarium is not much different than setting up a fish aquarium. You should choose plant species that you know how to care for. If you have not kept a planted aquarium before, ideally stick to sturdy and adaptable plant species. As your knowledge increases then you can move on to the more delicate species.

TANK SIZE

Start with a small tank from 10 gallon to 30 gallons. Avoid tall or unusual tank as it might be difficult for the light to penetrate to the plants at the bottom of the tank.

LIGHTING

The basic rule of thumb here is 2watts per gallon except for a 10 gallon tank. The 10 gal tank is small enough to be able to use a 15 watt bulb.

HEATING

For any tank 20 gallons and under you can use a 150 watt heater. A 200 watt heater will be good to use for the larger tanks. It is important to get a good quality submersible heater. Also a thermometer should be used to take the temperature of the water as far away from the heater as possible.

FILTERS

An internal or external filter is the best way to go. You never want to use a under gravel filter because it will take the much needed CO2 from the water.

SUBSTRATE

A substrate of 1-3mm is the optimal size for a planted tank. The depth of the gravel should be around 3 inches deep. If you want to provide your plants with some extra nutrients, you can add some iron rich clay, such as laterite. What I like to use is 50% sand with 50% laterite. Make sure you rinse the laterite before adding to the aquarium.

INITIAL TANK SETUP

- Set up the aquarium and install the equipment just like you would set up an un-planted aquarium.
- Rinse the gravel under running water to prevent clouding of the water. If the gravel comes from another aquarium, it should be properly sterilized to avoid disease. If you want to add laterite, mix some of the gravel with laterite in a large bucket.
- Fill the aquarium with roughly 1-2 inches of the gravel-laterite mixture. Place plain gravel on top until the total depth exceeds 3 inches. You tank is only 10 gallons, 2 ½ inches is enough.
- It is common to level the substrate, i.e. keep the substrate deeper in the back of the aquarium and shallower at the front to make it look more appealing.
- Add rocks, wood and other aquarium decoration.

- Fill the water just like you would fill an un-planted aquarium. Only fill 2/3 up; this makes planting easier.
- Plant all the plants that should be planted in the substrate.
- Fill the aquarium to the top.
- Add floating plants.

Plants for the beginner:

Java Fern	<i>Microsorium pteropus</i>
Java Moss	<i>Vesicularia dubyana</i>
Water Sprite	<i>Ceratopteris thalictroides</i>
Water Wisteria	<i>Hygrophilla difformis</i>
Valisneria	<i>Valisneria sp.</i>
Sword plants	<i>Echinodorus sp.</i>
Foxtail	<i>Myriophyllum sp.</i>

Fill the tank the rest of the way. It is important to note to try not to have the filter water splashing down onto the aquarium water as this will displace the CO2 in the water column. Once you have decided on the population mix for your tank, add them slowly. Bring in one species the first week, another next until the tank is fully stocked. Make sure to avoid any fish that are known to be plant eaters.

Show Raffle

By Mike Hellweg

The Show Raffle this year was a record setter! We raised more money this year than we have in any two years together in most of our past show raffles. This money goes directly to help defray the cost of bringing in our excellent speakers.

Thanks to Chuck Dyn and the folks at Tropical World Pets for their donation of a 125 combo and stand, and thanks to Rick Smith and the St. Louis Zoo for their donation of the behind the scenes tour of the Penguin House.

The 125 combo and stand were won by MASI member Rick Jokerst, and the Penguin House tour was won by MASI member Justin Lehmann.

Congratulations to you both, and a special thanks to Laura Wagner for her Herculean effort in selling raffle tickets all weekend!

Spawning *Sturisoma aureum*

By Rick Tinklenberg

If I put together a list of my 10 favorite fish, Royal Farlowellas will definitely be included. This common name covers a small group of *Sturisoma* species which appear to be the aristocratic form of another genus, the Farlowellas. With a wider, taller body and longer, more elegant finage, these fish are “branches” to the Farlowellas “twigs”. In our home, they are known as “helicopter fish”. Alice, observing the wide substantial head/dorsal area, the long caudal peduncle and the crescent tail fin saw the outline of a helicopter, thus, the nickname.

Sturisoma aureum is an eight to ten inch catfish of the Loricariidae family. With its brown, black and cream color palette, it easily blends in as a branch when attached to submerged driftwood. I can see an underwater predator swimming past a *Sturisoma* or an airborne raptor not seeing this catfish because of its ability to mimic its woody environment.

Currently 14 species of *Sturisoma* are recognized, their range is the Amazon basin up to Panama. *Sturisoma aureum* is collected in Columbia’s Magdalena River drainage. They inhabit fast moving highly oxygenated white water areas with plenty of submerged driftwood and algae covered rocks. *Sturisoma* graze on the algae, wood and associated micro critters which colonize the substrate.

Care in the aquarium is usually unproblematic if a few fundamental requirements are kept in mind. First, this is a relatively large catfish, so an aquarium of 50 gal. or larger will be appreciated. Second, they are from highly oxygenated waters, so use filters with medium to strong output currents. Also, regular, partial water changes are a must. Third, this fish tends to the herbivore side of the dietary spectrum, but protein is appreciated. A varied diet including zucchini, peas, green beans, flake foods and frozen foods will keep your fish in good health. In addition, driftwood should be included as a place to rest & graze. Lighting should be intense enough to promote some algae growth. Water parameters can range up to 7.4 ph, slightly hard for care in a community tank to 6.8-7.0 ph, slightly acidic, softer water for breeding with temperatures of 78 degrees + or - 3 degrees.

I have had this fish spawn in community tanks, as well as species tanks. They always spawn on the glass where the output current of a filter is directed. The male protects the clutch and can be identified by his bristly beard. Depending on the size and age of the mother, 30-100+ eggs are laid. At first, the eggs are clear, then as the embryos age, they darken to a strong brown. After 6-8 days, the fry hatch and are quite large. Up to this point, everything about keeping and spawning this fish has been relatively easy. Now for the hard part. Growing out the fry of this fish has proved difficult and unreliable for everyone I talked to. I’ve tried different methods and prepared special food with limited success.

My most successful experience was in a 50 gal breeder aquarium. The key was a very old, soft piece of driftwood with plenty of algae growth. I had a medium strength power filter and when I did water changes, I didn’t remove any mulm. The young thrived in this environment and grew quickly. The only food addition was live baby brine shrimp am & pm. When observing the fry, they move very seldom, so food must be right under their body or very close. With the soft driftwood providing algae and microfawna and adding live baby brine shrimp, this criterion was met.

As I said in the beginning, this is a favorite fish at our house. Its beauty and elegance in a community tank make it a pleasure to observe. Spawning is usually unproblematic and interesting. Raising the fry is difficult, but with good technique and perseverance, definitely possible. I encourage you to give them a try.

Aquarium Tech Tips

A Simple Test Can Save So Much

By Charles Harrison

Our water we drink from the tap is just so great. It is crystal clear, practically odor free, easy on our household plumbing, just so tainted with Fluoride for the health of our teeth and germ free. We don't have to worry about Dysentery, Cholera and the majority of Bad Bugs found in 3rd world water supplies of their rivers. Added Chlorine does the trick for us. Most municipalities treat their water with Ammonia in addition to Chlorine gas to bind together the 2 materials into ChlorAmine for long-term stability. In fact one can fill a bucket almost full of tap water here in St Louis and add aeration with an air stone letting it froth for 4 to 7 days and still test positive for Chlorine and find enough to kill the Bad Bugs along with our most prized tropical fishes.

Usually the mortality is sweeping with a Chlorine kill, although a few may survive several days and finally succumb to a gill infection due to the damage caused by the Chlorine. In rare cases the Bettas and fish of their family, Anabantoids, will survive a dosing, but they will have their gills damaged by Chlorine and especially ChlorAmine in their water.

I hear that everyone is aware of the de-chlorinators, AmQuel, AmQuel Plus, Ammo Lock, Start Right, Sodium Thiosulfate, Liquid AmGuard, Erase-Cl, Insto Chlor, etc. and see there is a dosage on their containers indicating how much of their chemistry needs to be added to the fish change water to remove the deadly ChlorAmine added by the municipal water company.

"I always add a cap full to 5 gallons and the fish seem to do OK. Well, there was that one time when I changed the water in my new *Botia sidthimunki* tank and that afternoon they were all but one dead. I only changed half of it. I blamed it on water quality, pH or something like that, but . . ."

It's not that 'the' *Botias* were dead, it's that it can happen any time one changes the water with tap water. Chlorine left in the changing water is normally fatal for fish and the good protozoa and bacteria in the tank as well. This kills the Nitrogen cycling bugs and everything has to start again and it takes some time to cycle a tank. In addition, the kill-off often results in a bacteria bloom and clouding that may also take out the surviving fish. Chlorine in the aquatic environment is seldom a good thing. Treating the Chlorine is a must. Chlorine treatment needs to be effective and safe for the inhabitants. Overdosing needs to be a thing that doesn't cause problems like releasing unwanted chemicals into the water, chemicals that could kill life forms we are trying to culture.

AmQuel and AmQuel like preparations are composed of less than desirable components, which seem to be released into the water after the Ammonia is released. Thiosulfate and Sulfite preparations tend to lower pH and if in sufficient amounts, can cause a pH drop that can be just as fatal as Chlorine. So, what is the hobbyist to do?

My answer is: Testing for Chlorine is really better than just dumping in some roughly measured amount of Chlorine neutralizer and hoping. There are 2 methods for Chlorine determination available cheaply to the public. Swimming pool equipment companies and most hardware stores carry some type of test kits for Chlorine in pool water. Most kits are designed for testing the Free & Total Chlorine of 0.5 ppm - 5.0 ppm and Bromine of 1.0 ppm - 10.0 ppm. Our tap water is supposed to be 1.0 ppm, but

Chlorine concentrations in typical drinking water supplies range from 0.5 to 2 mg/L as Cl₂, which are sufficiently high to produce strong chlorinous odors. Concentrations at the treatment plant, where odor monitoring usually occurs, can be as high as 4 mg/L as Cl₂. § (Hydrogen Peroxide, Nitrites and Vitamin C are also excellent Chlorine removers)

There are DPD and OTO testing kits. The initials stand for the names of the chemical compounds which react to Chlorine to give a color change. DPD turns purple and OTO turns yellow. DPD is a liquid at room temperature and OTO is a solid. Although it costs more, it lasts longer in the pure state and easier to handle for a chemist like myself. OTO has to be dissolved in 10% Hydrochloric Acid and that is how I make it up. It is a small caution, but there are worse things used in the household market. Typically the kits are setup to indicate an amount of Chlorine in the sample. They measure a range from 0.5 to 2 mg/L Chlorine. As an aquarist, I am interested that there is no Chlorine in the water, not how much. So, I made a test solution twice as strong as the standard indicator solution is typically sold. I don't need a color to compare against since I am looking for No Color = No Chlorine. And it works. The test solution, 2 drops in a sample of 10 ml (cc) of water to be tested turns yellow if there is even 0.01 ppm of Free Chloramine present.

But, I guess that's blowing my own horn, but wait- that's what I'm doing here isn't it? I sell the test solution for \$12.50 a 4 ounce bottle. At a use rate of 2 drops per test, 4 ounces amounts to about 1,775 tests or about 0.7 ¢ per test. Or some where close to a penny a test to be safe and absolutely sure there is no Chlorine in the 55 gallon drum of water I am about to use to change my tank water.

If you don't want to buy mine, there are other test kits available in the hardware stores and pool centers around town. Just remember that the results shouldn't register in their test window. The end result should be colorless or zero Chlorine/Bromine in the test results.

One item I can't stress enough, simple aeration or long standing will not remove the Chloramine from today's tap water. Treat it and test it before use with the fish.

§ Water Chlorination/Chloramination Practices and Principles, American Water Works Association, Aug 2006 and references cited therein.



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BAP Report

Steve Edie

Member	Species	Common	Pts	Total
Mar 2008				
Charles Harrison	<i>Chlamydogobius eremius</i>	Desert Goby	15	1827
Charles Harrison	<i>Chlamydogobius eremius</i>	Albino Desert Goby	3	1830
Jerry Jost	<i>Aphyosemion striatum</i> "Moyoko" *		20	260
Cory Koch	<i>Aulonocara</i> sp. "maulana" *	Bi-Color 500 Peacock	15	726
Gary McIlvaine	<i>Aequidens pulcher</i>	Blue Acara	5	543
Gary McIlvaine	<i>Characodon lateralis</i> @		15	558
Jim Miller	<i>Gambusia (Flexipenis) vittata</i>	One Band Mosquitofish	15	2024
Jim Miller	<i>Ilyodon furcidens</i> (previously submitted)		0	2024
Jim Miller	<i>Limia tridens</i>		5	2029
Jim Miller	<i>Moenkhausia pittieri</i>	Diamond Tetra	15	2044
Jim Miller	<i>Puntius ticto</i>	Odessa Barb	10	2054
Jim Miller	<i>Synodontis multipunctatus</i>		20	2074
Jim Miller	<i>Telmatochromis temporalis</i>		10	2084
Jim Miller	<i>Xenophallus umbratilis</i>		15	2099
Andy Walker	<i>Corydoras panda</i>	Panda Cory	10	15
Apr 2008				
Steven Hoffman	<i>Limia tridens</i>		5	50
Jerry Jost	<i>Melanotaenia praecox</i>	Neon Rainbowfish	10	270
Jerry Jost	<i>Trigonostigma hengeli</i> **	Glowlight Rasbora	30	300
Cory Koch	<i>Ilyodon furcidens</i>		15	741
Mark & Tammy Langer	<i>Tilapia snyderae</i> @		30	802
Mark & Tammy Langer	<i>Tilapia mariae</i>		10	812
Mark & Tammy Langer	<i>Fundulopanchax gardneri</i>		15	827
Gary McIlvaine	<i>Telmatochromis</i> sp. "Orange Scribble"		10	568
Gary McIlvaine	<i>Pseudosphromenus cupanus</i>		15	583
Philip Newell	<i>Poecilia reticulata</i>	Albino Blue Guppy	1	70

Rick Tinklenberg	<i>Tanichthys micagemmae</i> @	20	1605
Rick Tinklenberg	<i>Characodon lateralis</i> “Los Boros”@	15	1620
Rick Tinklenberg	<i>Celestichthys margaritatus</i> Galaxy Rasbora	10	1630
Derek Walker	<i>Astatotilapia calliptera</i>	10	795

* = First MASI species spawn (5 point bonus)

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

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

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

Congratulations to those who achieved BAP milestones at our annual show.

Jerry Jost	Senior Breeder
Mark & Tammy Langer	Master Breeder
Gary McIlvaine	Grand Master Breeder
Ed Millinger	Grand Master Breeder
Gary Lange	Senior Grand Master Breeder
Rick Tinklenberg	Senior Grand Master Breeder

Mike Hellweg 200 Different Species Bred

Editor's Notes

Steve Deutsch

Steve Edie is a repeat winner for the Ralph Wilhelm Publication Award. Steve won for his thought-provoking article, “Lesson’s Learned”. I would like to thank Joe Fleckenstein for being the judge, and all of the authors from last year for making Joe’s job difficult. Keep the articles coming – you are what make the Darter a publication our club can be proud of. There is a picture in this issue of Steve Edie presenting a check for the Stuart Grant Conservation Fund for \$1313. The actual donation was \$1413, as Steve donated his winnings for the Publication Award in addition to the funds the club members raised and MASI’s contribution.

For the newer members, Ralph was a long-time member of MASI, a 25 year Executive Council member, and our auction chairman. Ralph believed the club publication was the lifeblood of the club, so in his will he left his fishroom equipment to MASI to sell and fund a cash prize for authors.

In a “pinch me I must be dreaming” moment, I count a backlog of eight articles by MASI members waiting for publication! Not only that, but most are plant articles, which I have been looking for. Derek and Harold Walker both have submitted several articles as HAP requirements, which will be appearing in the next few issues. We have HAP articles from both in this issue, as well as a BAP article from Rick Tinklenberg. Andy Walker has been asking for members to share their “Tech Tips” and in this issue Charles Harrison has responded. Andy would appreciate more members to share their pointers. Maureen Green has submitted another selection of tips for this issue.

Pat Tosie has passed on information about a couple of MASI members who have had had articles reprinted. Reet Thomas Jr.’s article *The X-Files: Earthly Happenings or Alien Encounters?* was

reprinted in THE TROPICAL NEWS, Volume 59 Number 6 April 2008, the publication on the Sacramento Aquarium Society. Pat Tosie's article *The Drive for Fish (Another Central American Collecting Trip)* was reprinted in THE GRANITE-FISHER, Volume 17 Number 1 January 2008 the publication of the New Hampshire Aquarium Society.

Deadlines for articles for the remaining issues this year are June 15, August 15, and October 15. Remember, all articles of one or more pages are automatically entered for the publication award.

All photos in this issue are courtesy of Gary Lange.

Types of Algae in the Aquarium

By Harold Walker

Hobbyists who keep aquatic plants in the aquarium probably have seen what is called “Algae Bloom” at some point or another. The most common algae seen in the aquarium are Red Algae, Green Algae, Diatoms and Blue-Green Algae. Excessive lighting from direct sunlight or aquarium lighting is one of the major problems for this. The other is from an excessive build up of nutrients or a combination of both. The best way to keep this from happening in your tank is by regular water changes and controlling the amount of light the tank receives. Here is a chart of the different types of algae in each group.

TYPE	CAUSE	CURE
<u>DIATOMS</u>	This is a brownish form of algae that is caused by poor lighting and a heavy load of nitrates and phosphate with a ph above neutral. It will form on plants, rocks and on glass.	Use of snails and algae eating fish will help get rid of Diatoms. Water changes and proper lighting will improve water condition and the algae will die off.

RED ALGAE

<u>BLACK SPOT</u>	This forms small black spots on the leaves of the plant. Excessive nutrients and lighting help it spread but the exact cause is uncertain.	Although difficult to control it is best to remove the affected leaves to help getting rid of it.
<u>BEARD ALGAE</u>	It has long black or dark green branches. This algae is usually introduced from newly added plants. It thrives on high nitrate levels and/or CO2 deficiency. It attaches itself on the leaves of the plant.	Use of algae eating fish and CO2 fertilization of the tank are the best ways to get rid of this algae.
<u>BLACK BRUSH</u>	Looks like dark bunches that attach itself to wood, rocks/gravel and the leaves of plants. It thrives in nutrient rich water that is acidic.	The best way to remove is by CO2 fertilization of the aquarium.

<u>BLUE GREEN ALGAE</u>	Forms a layer on the plants and gravel. It is caused by excessive lighting and high nutrient levels.	The best way of removing is by total darkness for about a week followed by a few large water changes.
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GREEN ALGAE		
<u>GREEN SPOT ALGAE</u>	These are small round dark green spots on the plant leaves as well as the glass. It thrives in poor water conditions.	Proper water conditions will stabilize it. The help of snails and algae eating fish will get rid of it.
<u>PELT ALGAE</u>	Long string that attaches to the plant leaves. Thrives in water with a high nitrate level.	Regular water changes will help slow the growth. Add snails and algae eating fish to get rid of it.
<u>GREEN BUNCH ALGAE</u>	It forms bunches that can grow over an inch long. It thrives in tanks that have too much light and that are over fertilized.	It can be removed by hand or by algae eating fish.
<u>GREEN THREAD ALGAE</u>	It forms long green thread (filaments) that grow from the plant. It thrives in excessive lighting.	It can be removed by hand or by algae eating fish.

Dwarf Suckermouth catfish (Otocinclus sp.)

These catfish have long been kept in planted and non-planted tanks for algae control. They are small suckermouth catfish that eat soft green algae off tank surfaces and plant leaves. Most varieties stay small.

Siamese Algae eaters (Crossocheilus siamensis)

SAEs are a prized addition to many planted tanks. SAEs are one of the only fish known to eat the dreaded Black Brush Algae. They resemble Flying Foxes, and will grow quite large (5 inches) in time. These fish are often mistaken for many similar looking fish. None of the look-alikes share the SAEs algae-eating skills.

Japonica Shrimp (Caridina japonica)

Algae Eating Shrimp are busy algae eaters. They are known to eat Black Brush algae, and hair algae, in addition to the normal soft green algae. They are an interesting and helpful addition to a planted tank. They can become tasty and expensive treats for larger fish, so be careful adding them to a tank with big eaters! They are mainly nocturnal, and hard to find, so don't assume they have become snacks if you can't find them.

Bushy Nosed Pleco (Ancistrus sp.)

The Bushy Nosed pleco is a variety of Pleco that stays small, and won't eat all your plants like their larger cousins. Bushy Nosed plecos are suckermouth catfish. They will primarily eat soft green algae off wood/rocks/plants/glass. They may damage or eat some softer plant leaves.

These are just a few examples of the types of algae commonly found in the aquarium. With the correct light exposure to the tank and good water quality your tank should never get an "Algae Bloom".

HAP Report Mar-Apr 2008

Mike Hellweg

Member	Species	Common	Rep	Pts	Total
Jerry Jost	Cabomba caroliniana caroliniana	Fanwort	V	10	1515
Jerry Jost	Cardamine lyrata	Chinese Water Ivy	V	10	1525
Jerry Jost	Heteranthera zosterifolia	Stargrass	V	15	1540
Jerry Jost	Ludwigia glandulosa		V	10	1550
Jerry Jost	Myriophyllum simulans	Fillagree Myrio	V	10	1560
Charles Harrison	Cryptocoryne spiralis	V 15			
Charles Harrison	Marsilea sp.	Dwarf Water Clover	V	15	680
Harold Walker	Alternanthera reineckii	Red Hedge	IB	20	815
Harold Walker	Alternanthera reineckii	Red Hedge	S	15	830

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

MASI would like to thank Ray 'Kingfish' Lucas and all his sponsors for Kingfish's appearance at the annual show. It is always a treat when a club is able to schedule an appearance with Ray.

Ray's appearance is funded through the companies he represents, so those companies are helping the hobby both through sending Ray and sending their generous donations. Donations from these companies, through Ray, provided income at the auction and will provide raffle prizes throughout the year. This benefits members by providing an opportunity to see some of the latest products as well. If you liked what you saw, remember that these are the companies that are supporting the hobby organizations like MASI when you are considering your next purchase.

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Membership Corner

by Kathy Deutsch

Welcome to our new members 2008!

Pam Burton

Carissa Wagner and Timothy Brooks

William McCaslin

Joe Gephart

Randy Ison (welcome back!)

Katherine Armey (welcome back! cute baby!)

Joe Ryan

Tony Mc Millan

Dennis Dielschneider (welcome back!)

Bob Huels (welcome back!)

Tony Oswald (welcome back!)

Ray Alcantara

Brian Hoffman

Valerie Bauer and Andrew Matheson

Craig Henning

Dan Ellebracht (welcome back!)

Orin Moore

Scott Campbell

Greg Beatty

Jackie Clark (from Peoria, where they grow the blind cave tetras extra big)

Mike Hellweg is busy with well-earned success. He is a columnist in the Buntbarsche Bulletin with a monthly column "Livefoods for Cichlids". "Aquarium Fish Magazine International" also has Mike as a monthly columnist for "Adventures in Fish Breeding"-illustrated with photos by Gary Lange. He has also authored a new book. From TFH Publications - *Culturing Live Foods* - the first major book (240 pages - hardback) on live foods published in over a quarter of a century.

A bonus coup for MASI - all of the photographs in the book (except for a dozen or so) are by our own Gary Lange, Charles Harrison, and Mike Hellweg!

Available for shipping on June 1st through Amazon.com, TFHpublications.com, BN.com, or your local book store.

Mike says he will be happy to sign copies if anyone wants one, and will have a limited number available for sale at the June meeting.

Ed Millinger has donated (over the years) 17 gallons of blood to the American Red Cross! He just made his 136th donation! Thank you, Ed for helping save lives.

From Pat Tosie's household...

Meghan Tosie won Champion in her division in a Regional English Hunter - Jumper Horse Show in Tennessee in April 2008.

It is difficult to jump in and work with all the strangers in the club (who seem to have known each other for years). Thank you, new members, for helping out!

Dave and Laura Wagner
Andrew Matheson and Valerie Bauer

At a previous auction, three young ladies did great jobs as runners. They were:
Anna Gunther
Lexi Gunther
and their friend Cheyenne

Last but not least:

MASI member Neko Pilarcik, is graduating from Columbia College in Chicago with a Bachelor of Arts degree in Film and Traditional Animation.

"The Three Artists", the film directed by Neko (she also did some of the hand-drawn animation) was chosen by her college to be entered in the Cannes Film Festival 2008 in May. Neko will be in Cannes to show and discuss her film.

MASI members, do you have something to brag about? Each issue of "The Darter" will feature a "Member's Corner". In it, we will have member interviews, information about other things MASI members are doing (this is a good place to tell us about upcoming school plays the kids are in, job promotions, A+ report cards, wedding anniversaries, and the like). We also want to hear what your fish are doing!

You do NOT need to write it. Just email (kathy@skdeu.com) or call Kathy Deutsch (314-741-0474) with the info and she will write it up and pass it to the Editor.

Nothing is too trivial. If you are proud of it and want MASI to know about it, let Kathy know.

Tidbits

By Maureen Green

Want to save money? Try a garage sale (I found a ten gallon aquarium, filter, lights,pump, 150' of airline hose, all for five dollars)

Want to sink driftwood fast? Boil it for fifteen minutes (old kettle), let it cool. It will sink in twenty-four hours.

Remember, when you put your tropical plants out for the summer to harden them off. Shade and same water from the pond that you put them in.

Doing a vegetable garden this year? Remember that you can grow food in a pond! (Lotus, Taro, Aponogeton distachyus, Watercress, Arrowhead)

Doing Crafts? Remember that you can use cattails and lotus!

The Computer Page

Steve Deutsch

MASI's official web page: www.missouri-aquarium-society.org

MASI's email group: MASIFishHeads Yahoo Group - see web site for joining instructions

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MASI MEMBERS E-Mail Addresses:

Jim & Sue Amsden	suzjimmie@aol.com
Al Andersen	alander602@hotmail.com
Michele Berhorst	mberhorst@aol.com
Klaus Bertich	kbertich@sbcglobal.net
Earl Biffle	biff.bat@juno.com
Roy Brandhorst	Skipperoy4@juno.com
Diane Brown	debunix@well.com
Scott Bush	sportspicks@charter.net
Steve Deutsch	steve@skdeu.com
Kathy Deutsch	kathy@skdeu.com
Steve Edie	sredie@charter.net
Maureen Green	jmsgreen@iopener.net
Charles Harrison	csharrison@inkmaker.net
Mike Hellweg	mhellweg511@charter.net
Angela Hellweg	pugdog64@yahoo.com
Steven Hoffman	hoffmo@cablemo.net
Lisa Hollenbeck	lisah@alpineshop.com
Lawrence Kent	lawkentnorton@yahoo.com
Gary Lange	gwlange@sbcglobal.net
Mark and Tammy Langer	JTMS@sbcglobal.net
Micky Lee	too_fishy@hotmail.com
Gary McIlvaine	gmcilvaine@msn.com
Ed Millinger	amazoneddy1@sbcglobal.net
Jim Mueller	muellerj44@yahoo.com
Bob Newton	robt.newton@sbcglobal.net
Brad Riley	briley53@aol.com
Rick Smith	polarfish2003@yahoo.com
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Pat Tosie	pattosie@yahoo.com
Patrick A. Tosie, II	patricktosie@juno.com
John Van Asch	johnsfishy@att.net
Dave and Laura Wagner	dave_laura@charter.net
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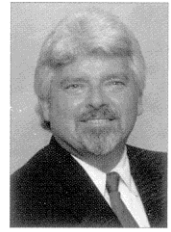
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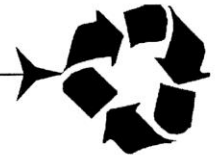
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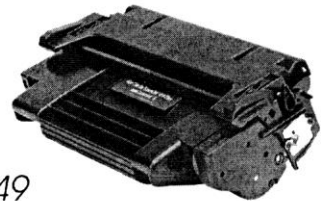
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