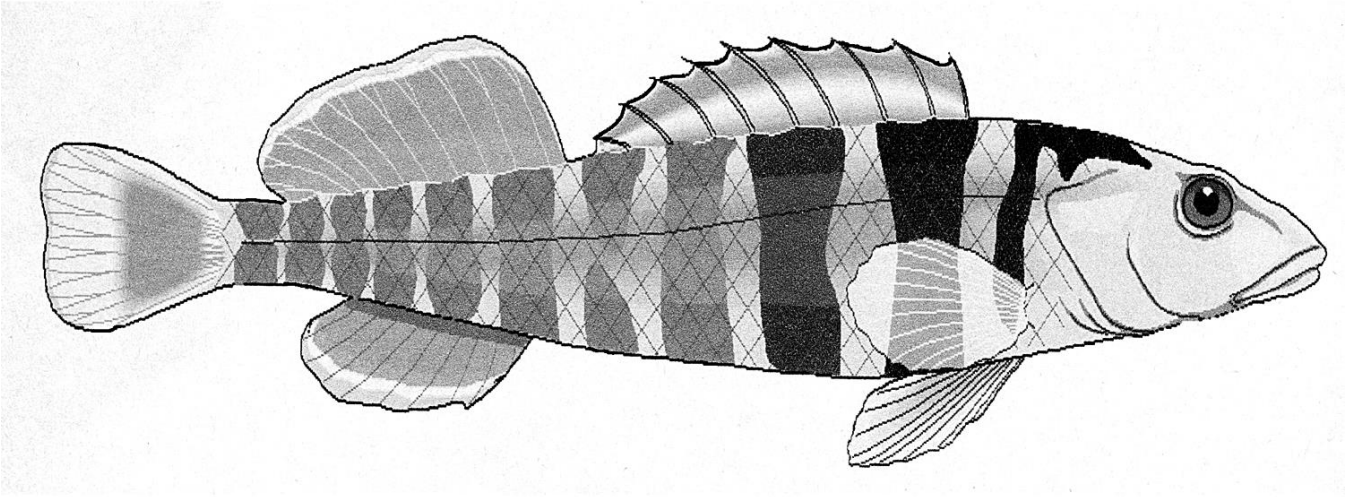
The Darter

July - August 2006



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St. Louis, Missouri

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

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

Please send exchange publications to:

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Places to Be
Things to See

SATURDAY August 5, 2006
Executive Council, 7:30 hosted by Mike and Angela Hellweg

SUNDAY August 13, 2006
Annual Summer Auction @ Stratford
Contact: John Van Asch – 618-277-6165, johnsfishy@att.net

THURSDAY August 17, 2006
General Meeting, 7:30 PM @ Dorsett Village Baptist Church

SATURDAY August 19, 2006
Executive Council, 7:30 hosted by Diane Brown

THURSDAY September 21, 2006
General Meeting, 7:30 PM @ Dorsett Village Baptist Church

SATURDAY September 23, 2006
Executive Council, 7:30 hosted by Steve Edie

SUNDAY October 1, 2006
Annual Fall Swap Meet
Contact: Mike Hellweg – 636-240-2443, mhellweg511@charter.net

THURSDAY October 19, 2006
General Meeting, 7:30 PM @ Dorsett Village Baptist Church

SATURDAY October 28, 2006
Executive Council, 7:30 hosted by Steve and Kathy Deutsch

THURSDAY November 16, 2006
General Meeting, 7:30 PM @ Dorsett Village Baptist Church

SUNDAY November 19, 2006
Annual Fall Auction
Contact: John Van Asch – 618-277-6165, johnsfishy@att.net

Presidential Preamble

By Mike Hellweg

Another summer is here already! Pond season is in full swing, the marginals are at full size and the lilies are blooming. Even with the travel season, planning for upcoming MASI events is heating up, too.

Did you ever wonder what the rules for a particular program could be? How about what the club's Bylaws actually are? Maybe you want to know what our library policy is, or how you can compete for show champion or hobbyist of the year awards. Well wonder no more! The membership booklet has finally been updated with all of that information, and much more! Kathy Deutsch will be passing out one copy to each member in the next month or so. Each new member will also get a copy along with their first year's membership.

The T-shirt contest is starting up this month. See the rules elsewhere in this issue of the Darter. Try out your artistic talents. Who knows? Your design might be the next MASI T-shirt. The voting will be at the October general meeting, and we hope to have shirts available for sale at the November Auction. If you need a copy of the official MASI logo for your design, contact me at the email address or phone number on the front page and I'll send you a copy.

August 13th will be our annual late summer Auction. All rules will be the same as they have been in the recent past. Contact chairman John Van Asch at the phone number or email address on the front page of the Darter to get a seller's number. You can print labels and a seller's sheet online at our website. Personally, I don't bother with buying label paper. I just print my labels on plain paper and attach them with clear tape to the item.

Active MASI members, defined as those with 10 service points or more in the past 6 months, will earn a 10% bonus. It's easy to earn service points. You just have to show up for the meetings and earn one point for each that you attend. You can also earn points by participating in the HAP and BAP, by writing for the Darter, by helping out at the meeting, by donating snack items to the refreshment stand, etc. Make sure if you make a donation that you sign on the appropriate sheet up front. It's next to the sign up sheet at every meeting.

October 1st will be our second annual Swap Meet from noon until 3:00 pm. Sign up for a table or two. Cost is only $20 per table, and you can sell any fish-related items that you want. You can find the rules elsewhere in the Darter. Contact me at the email address or phone number on the front page to sign up, or sign up at the next meeting. If it's like last year, tables will go fast! I cleaned out my fishy closet last year and made over $300. Other vendors also did very well.

Gary has lined up some fantastic speakers already for the coming year. We still have a few months to fill, but look for some great topics. Even if you think you might not be interested, you might be surprised at what you learn. I find something new and interesting in every single talk that I hear. If there is a specific topic that you would like to hear, let Gary or me know and we'll see about lining up a speaker on that topic.

There is still a chance to win the Fish Raising Contest. The final showing will be in August. Points are close, and it is still anyone's chance to win. Don't forget to bring your fish.

Submissions for the BAP and HAP have been a bit slow but still steady for the past few months. Don't forget to bring in your submissions!

…and for now, 'nuff said…

Statistichthyology

By Steve Edie

Well, I thought I'd catch up on the state of the union of the Missouri Aquarium Society's Breeders Award Program by looking into what we've done over the last 32 years or so. The Cardinals had an off day and I needed a statistics fix. Hopefully you also enjoy numbers, percentages, numerals, ratios, digits, integers, totals, sums, fractions, facts, factors, and all things statistical, combined with unpronounceable Latin names. Hot dang! [By the way, Albert Pujols will figure heavily in future baseball statistics.] To date there have been 3,251 spawns reported by 145 members, representing 32 different families, 218 different genera, and 688 different species. Six of these families are represented by only a single spawn each: ***Alestiidae***, ***Channidae***, ***Elassomatidae***, ***Percidae***, ***Polycentridae***, and ***Tetraodontidae***. Lightning strikes but once. [By the way, the average life expectancy of an enemy soldier in a Chuck Norris film is 4 seconds.]

The largest spawning concentration by far belongs to the family ***Cichlidae***, with 1,302 spawns among 86 different genera and 330 different species. Thus Cichlids account for 40% of all submitted spawns, 39% of the genera, and an amazing 48% of the species. That's nearly half for those scoring at home. The remarkable adaptive ability of Cichlids allows them to occupy almost every available freshwater niche by adopting various feeding, breeding, and social behaviors. But the common theme is attentive parental behavior of protecting their eggs and fry, fending off predators large and small, with remarkable success. This behavior is why they are so attractive to hobbyists. [By the way, the major league single season record for runs-batted-in was 191, set by Hack Wilson of the 1930 Chicago Cubs. The Cubs did not win the World Series that year either.] The single most popular Cichlid (popular meaning most frequently spawned) is the Angelfish, *Pterophyllum scalare*, with 99 spawns, followed by the Convict Cichlid, *Archocentrus nigrofasciatus*, with 48 spawns, the Zebra Cichlid, *Metriaclima zebra*, with 40 spawns, and the Kribensis Cichlid, *Pelvicachromis pulcher*, with 38 spawns. There were even 14 spawnings of the Discus, *Symphysodon aequifasciata* / *discus*, considered a difficult fish. There were likely more spawnings of this fish and some of the other difficult species, but those breeders may have been reluctant to donate these valuable fish to the BAP program. We recently reduced the quantity required for BAP donation of the more difficult species to lessen the financial impact to these breeders. [By the way, the number of chemical elements in the universe is 109; the number in a glass of New Jersey tap water is 98.]

A solid second place goes to the family ***Poeciliidae***, with 876 spawns among 23 different genera and 94 different species. The top dog here is of course, the Guppy, *Poecilia reticulata*, with 210 spawns, representing numerous colors and tail configurations. Next up is the Swordtail, *Xiphophorus helleri*, with 138 spawns, the various Platies and Moons, *Xiphophorus maculatus*, with 85 spawns, the Molly, *Poecilia sphenops*, with 65 spawns of various colors, and the Sailfin Molly, *Poecilia latipinna*, with 58 spawns. [By the way, the average powder base on an Aspen ski slope is 17 inches; on Tammy Faye Baker it's ¼ inch.]

Other popular families include the ***Cyprinidae***, with 185 spawns among 11 genera and 33 species, the ***Osphronemidae***, with 181 spawns among 9 genera and 25 species, and the ***Nothobranchiidae***, with 146 spawns among 9 genera and 70 species (I'll note here that the Killie folks are quite liberal in what they consider a species, subspecies or locale variant). Rounding out the top ten families are the ***Callichthyidae***, with 102 spawns among 4 genera and 21 species, the ***Goodeidae***, with 93 spawns among 13 genera and 17 species, the ***Melanotaeniidae***, with 89 spawns among 5 genera and 34 species, the ***Characidae***, with 78 spawns among 12 genera and 27 species, and the ***Loricariidae***, with

48 spawns among 6 genera and 12 species. [By the way, the average salary of a pro wrestler is $47,500 per year; if pro wrestling didn't exist, it would be $4.25 per hour.]

Perhaps just as interesting as what is on the list is what's not on the list, or is barely on the list. As popular as the Ram Cichlid, *Mikrogeophagus ramirezi*, is in the hobby, our club members have only spawned it three times in over thirty years. The Checkerboard Barb, *Puntius oligolepis*, has also only been spawned three times. The Uaru Cichlid, *Uaru amphiacanthoides*, has only been bred twice, as has the Oscar Cichlid, *Astronotus ocellatus*. However, a few of the missing species seem surprising, such as the Bumblebee Goby, *Brachygobius nunus*, which might not be considered easy, but would seem to be relatively easier than some of the more difficult species that our membership has accomplished. Also on this missing list are the Black Paradisefish, *Macropodus concolor*, the Snakeskin Gourami, *Trichogaster pectoralis*, the Panda Barb, *Puntius fasciatus*, the Clown Barb, *Puntius everetti*, the Odessa Barb, *Puntius ticto*, and the Tanganyikan Killie, *Lamprichthys tanganicanus*. [By the way, the Apollo 11 had only 20 seconds of fuel left when it landed.] Among several tetras overlooked by our members include the Rosy Tetra, *Hyphessobrycon roseus*, the Serpae Tetra, *Hyphessobrycon serpae*, the Red Eye Tetra, *Moenkhausia sanctaefilomenae*, the Rummy Nose Tetra, *Hemigrammus bleheri*, and the Splash Tetra, *Copella arnoldi*. [By the way, in Calcutta, 79% of the population lives in one-room houses.] Some Cichlids yet to be spawned include *Altolamprologus calvus*, *Nimbochromis polystigma*, *Ophthalmotilapia ventralis*, *Satanoperca jurupari*, and *Biotodoma cupido*. To those looking for some new challenges these might be good species to attempt; they will rate fairly high point values in the BAP program and will also get the bonus points for first MASI spawn. Plus you get the admiration / envy of your peers in the hobby and some fry not commonly seen in our area. Come on. Be somebody. [By the way, 0.3% of all road accidents in Canada involve a moose.]

It is not that surprising that our members have been unable to spawn the Neon Tetra, *Paracheirodon innesi*, the Cardinal Tetra, *Paracheirodon axelrodi*, the Harlequin Rasbora, *Trigonostigma heteromorpha*, or the Altum Angelfish, *Pterophyllum altum*, as these species are considered to be next to impossible to breed in captivity. Someday, someone will accomplish one of these. [By the way, 40% of women have hurled footwear at a man.]

What is the breakout of species points? There are 46 Class "D", 20 point species; 246 Class "C", 15 point species; 319 Class "B", 10 point species; and 77 Class "A", 5 point species. That gives a pretty good points distribution of 46% Class "B" (medium difficulty), 36% Class "C" (difficult), 11% Class "A" (easy), and 7% Class "D" (very difficult). [By the way, assuming Rudolph was in front, there are 40,320 different ways to arrange the other eight reindeer.]

Who are our big breeders in the club? Well, I'm sure you are aware of the current top guns: Pat Tosie, with 233 spawns of 212 different species for 2,858 points; Mike Hellweg, with 192 spawns of 180 different species for 2,467 points; Jim (Junior) Miller, with 178 spawns of 162 different species for 1,939 points; Gary Lange, with 94 spawns of 90 different species for 1,314 points; Charles Harrison, with 86 spawns of 82 different species for 1,381 points; and Rick Tinklenberg, with 66 spawns of 66 different species for 1,050 points. Noteworthy among these totals: Pat has spawned 19 different species of *Apistogramma*; Gary has spawned 16 different species of *Melanotaenia*; and Mike has spawned 15 different species of *Poecilia*. I noticed that Steve Lundblad, of Portland, is credited with 228 spawns by his club, so we rank with some of the best. I don't think anyone knows for sure (including the Maestro himself) just how many notches are on the belt of Rosario LaCorte of New Jersey, but it's a very large number. [By the way, one-fourth of the bones in your body are in your feet.] You may not remember some of our former members who were major breeders in their day. They include: Peggy Scott, with 217 spawns of 206 different species for 2,872 points; the late Reet Thomas, with 166 spawns of 149 different species for 1,942 points; and the late Ralph Wilhelm, with 102 spawns of 101 different species for 1,401 points. Peggy has spawned 15 different species of *Pseudotropheus* and 13 different species of *Neolamprologus*. Note that the difference between number of spawns and species accounts for multiple color morphs of the same species. [By the way, the average four-year-old asks 400 questions per day.]

Who has been the most productive in a single year? [That would be Barry Bonds, with 73 home runs in 2003.] Oh. Then that would be Jim Miller, who turned in 38 spawns in 1984. (Jim states that he doesn't use steroids.) Next would be former member Rick Winkler, who turned in 35 spawns in 1993, followed by Peggy Scott with 34 spawns in 1985. Peggy also had 25 spawns in 1980, 23 in 1987, 21 in 1982, and 20 in 1986. Former member Ray Fisher had 32 spawns in 1987, as did Mike Hellweg in 2003. Mike also had 28 spawns in 2005, 23 spawns in 1993, and 20 in 2004. [By the way, Mike is batting .358 with ***Goodeids*** in scoring position.] (Sorry) Former member Warren Scott had 31 spawns in 1985, as did Reet Thomas in 1981. Reet also had 23 spawns in 1987. Other current members with high annual totals are Rick Tinklenberg, with 25 spawns in 2005, and Pat Tosie, with 24 spawns in 1990. It is worth noting that a fairly new member, Gary McIlvaine, already has 18 spawns through June of this year, so he is on pace to join this elite group. [By the way, you are more likely to be attacked by a cow than by a shark.]

Not enough stats for you? Okay, so who has spawned the most difficult fish? That can be looked at a couple of different ways. Who has spawned the most class "D" (20 point) fish? That would be Mike Hellweg with 11, followed by Charles Harrison with 9, Peggy Scott with 6, and Reet Thomas and Rick Tinklenberg, with 5 each. Jim Miller, Ralph Wilhelm, and Derek and Harold Walker have 3 each. [By the way, if you played all of the Beatles' songs that came out between 1962 and 1970 back to back, it would only last 10 hours and 33 minutes.] So who has the highest percentage of class "D" fish among their spawns? 10.5% of Charles Harrison's spawns were class "D", 7.6% of Rick Tinklenberg's, and 5.7% of Mike Hellweg's. [By the way, there are more plastic flamingos in the U.S. than there are real ones.]

Next, which of our breeders has shown the most diversity in their spawning endeavors? That would be our Mike Hellweg, with 21 different families. Gary Lange and Peggy Scott are tied for second with 19 each, followed by Jim Miller with 17, and Charles Harrison and Reet Thomas with 15 each. Next up is Pat Tosie with 13, Rick Tinklenberg with 11, and a four way tie with 10 each: Ed Millinger, Derek Walker, and former members Blenda Godman and Gerry Ketts. [By the way, Montpelier, Vermont, is the only state capitol without a McDonalds.]

Another way of looking at success is who has the most "first MASI spawns"? That would be Peggy Scott with 106, closely followed by Pat Tosie with 104. They are followed by Mike Hellweg with 83, Gary Lange with 50, Ralph Wilhelm with 43, and Charles Harrison and Reet Thomas, with 42 each. Jim Miller and Rick Tinklenberg are not far behind with 37 and 32 respectively. Digressing even further into statistical heaven, who had the highest percentage of first spawns among their total spawns? That would be the late Rich Crabtree with 65.8% (25 firsts), Gary Lange with 53.2%, Peggy Scott with 48.85%, Charles Harrison with 48.84%, (notice I added an extra decimal place to break the tie -- take that, Killie boy), Rick Tinklenberg with 48.5%, Pat Tosie with 44.6%, Mike Hellweg with 43.2%, and Ralph Wilhelm with 42.2%. [By the way, there are 108 stitches on a regulation baseball.]

Gee, what's left? I guess a difficulty factor would be average points per spawn. Leaders there would be former member Chad Christensen, who averaged 18.1 points per spawn. (That included some first spawn bonus points but is still quite impressive). Close behind is Steve Edie, with 17.8 points per spawn, Cory Koch with 16.3, Diane Brown with 15.7, and Jerry Jost with 13.8 points per spawn. However, these five don't yet have enough career at-bats to qualify for top honors here. So among our heavy hitters, the leaders would be Charles Harrison, with 16.1 points per spawn, Rick Tinklenberg with 15.9, Gary Lange with 14.0, Ralph Wilhelm with 13.7, Rich Crabtree with 13.6, former member Randy Ison with 13.4, Mike Hellweg with 12.85, Peggy Scott with 12.82, Pat Tosie with 12.2, Reet Thomas with 11.7, and Jim Miller with 10.9. [By the way, if everyone in India lined up in front of you, and you started walking past, you would never see the end of the line due to their reproductive rate.]

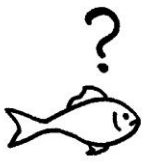
So aren't you glad you asked? [By the way, our members have scored a grand total of 34,241 points, which averages out to about 1,070 points per year, or 89 points per month, or….]

This information is current thru June 2006. Things change. Hopefully your water does too.

MASI Swap Meet Rules
October 1, 2006
Noon to 3:00 PM

1. Admission $1 per person over age 10.
2. Payment for table(s) must be made BEFORE seller will be allowed to sell.
3. Admission fee of $1 will be waived for sellers – Limit 2 free admissions per table.
4. Sellers must wear nametags for the duration of the Swap Meet so they can be clearly identified.
5. No outside sales by non-registered sellers will be permitted.
6. Sellers must bring their own change, etc. Change will not be available from the MASI table.
7. Each seller may set their own policy as to whether or not they will accept checks, credit cards, etc.
8. No phone hookup for POS devices is available in sales room.
9. Electricity is available, but sellers must bring their own extension cords, multi-outlet strips, etc.
10. **ALL TRANSACTIONS ARE STRICTLY BETWEEN THE SELLER AND THE BUYER.**
11. MASI is only providing table space and advertising. MASI assumes no responsibility or liability for any sales.
12. Seller is responsible for collecting any sales tax that may be due.
13. ONLY aquarium and pond/water garden hobby related merchandise may be sold. Fish, inverts, aquatic plants, fish foods, aquarium or fish books and magazines, pond or aquarium equipment and related decorations and supplies may be sold.
14. All equipment must be in working order, or be sold clearly labeled as "For Parts Only"
15. Leakers must be labeled as such.
16. NO reptiles or amphibians may be sold.
17. No hybrids, deformed, sick or illegal fish or plants may be sold.
18. No Missouri or Illinois native fish or plants may be sold.
19. Fish must be humanely and properly packaged for sale.
20. These rules are not all-inclusive. The Swap Meet chair is the Final Authority.

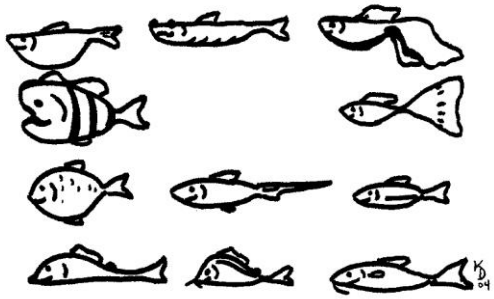
Attendance prizes will be drawn every hour on the hour. Must be present to win.
Raffle will be drawn at the end of the Swap Meet. Need not be present to win.



We've got a place for you!

Missouri Aquarium Society, Inc.

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



The Ornate Halfbeak *Hemirhamphodon chrysopunctatus*

By Mike Hellweg

A couple of years ago I was lucky enough to have a chance to trade with a fellow American hobbyist who was living in Europe. He had several fish that I had never even seen before, much less kept, and I likewise had several things he was interested in that were not available to him locally. One of the most fascinating fish that I got was a colorful halfbeak called the Ornate Halfbeak in the literature, though beyond that there is little information about them either in the literature or on the Net. He called them the Golden Mozan Halfbeak, though he had no idea where the name came from. The fish were from an Indonesian friend of his, who had collected them himself.

Before I go any further I guess I should mention that importing fish is not for the feint of heart. There were several forms to fill out, fees to be paid, and I had to find an importer who was willing to receive the fish and handle the permits, then ship them to me – all time consuming. Definitely not something to be done on a whim, but considering what I got in exchange, I think it was well worth it.

They are fairly colorful; I guess that is where the "ornate" part of the common name comes from. From the little I could find in the literature, coloration can be variable. My group had a wide, dark bluish brown stripe down their side from the golden-ringed eye to the caudal peduncle. Their backs were metallic gold, and there was a thin gold stripe under the wider dark stripe. The males had orange dorsal and anal fins, but the caudal fins were clear. Juveniles sported a series of bright gold spots under the wide dark stripe that later solidified into the lower golden stripe as they grew.

I also noted a thin red stripe on the lower jaw of the dominant male, or at least what I'm guessing was the dominant male. He was the most colorful, and the only one who seemed to court the females with an intricate little dance. The other males did not have this stripe. He would yawn in front of them (maybe showing off his red stripe?) and do a little flick with his body, but other than that, I never witnessed any aggression, and I never saw any injured fish.

In the wild they are found in slow flowing forest streams and black water swamps on the southern Indonesian part of the island of Borneo. They are reputed to be hard to keep, but I'm betting that is because most people think hard or brackish water when they think of halfbeaks. Just a guess, but they probably are keeping them in the wrong water. I found them to be very hardy and they did very well for me in my black water tanks, in similar conditions that I keep things like small *Betta* species, Licorice Gouramis, and some Rasboras. I also kept them fairly warm in the low 80's Fahrenheit. The tanks were well planted with *Najas* and with a cover of Water Sprite over about a third of the surface.

While they took flakes from the first day, I mostly fed them live red flour beetles (*Tribolium castaneum*), live black worms and white worms via a floating worm feeder, and freeze dried bloodworms. They ate everything with gusto. Unlike other halfbeaks that I have kept, I never saw them feed off the bottom, even when the worms would get away from them. When I moved the juveniles back to the adult tank, the adults would also feed on the baby brine shrimp and Moina that I was still feeding the juveniles.

Unlike the more commonly available halfbeaks of the genera *Dermogenys* and *Nomorhamphus*, these guys stayed thin, almost needle-like. They also had a much more delicate looking "beak" that was comparatively larger to the rest of their body size than the more common halfbeaks. Even the gravid females did not get very fat, so I was surprised by the first batch of young. They never produced more than a few fry at a time, and I'm not 100 % sure, but it almost seemed like the females only dropped a couple of fry a day over a several day period as it seemed like every day there were a few fry that I had missed from the day before. Fry appeared over a period of a week or so about every 9 weeks. I never saw the actual delivery, but the fry were up at the surface in the plants when I went to feed in the

morning. The largest one week production that I got was 12 fry. Since I was keeping them in a colony setup, I'm not sure if that was all from one female, or if it was from more than one.

I carefully removed the just under half inch long fry as I saw them by chasing them into a cup. I moved them to a separate rearing tank as I feared the adults would eat them. However, as I discovered later, as long as the adults were well fed, they ignored the fry. The fry took live baby brine without hesitation, and by the age of 4 weeks they were large enough to eat Confused Flour Beetles (*Tribolium confusum*).

With this diet, along with the occasional feeding of carnivore type flakes, the juveniles grew quickly, and within 3 months were nearly as large as the adults, though it was quite a bit longer before their colors evened out and they started reproducing. My big adult male was about 3" long, with the others pretty close to that size. The adult females were just a bit bigger. None of them were much more than a quarter inch thick (less than the thickness of a common yellow #2 wood pencil), except the gravid female, who would be just slightly thicker.

This is unusual for *Hemirhamphodon* species as normally the male is larger than the female. Due to the limited number of males available to me, it is possible that my group was descended from a single male that was genetically predisposed to smaller size. I'm not sure, but I thought I should mention it as others should find that their males grow larger than their females as this is normal for the rest of the genus.

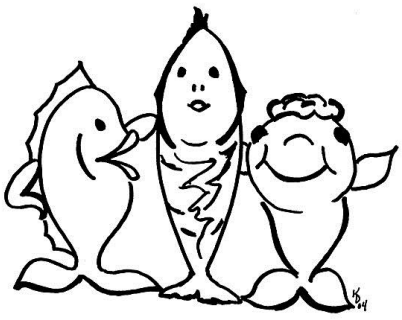
After a while when the colony reached about 40 individuals, I stopped moving the fry from the colony tank they still continued to regularly produce young with no predation nor any intervention on my part. I maintained the colony through 3 or 4 generations before I passed them out to several other aquarists around the Midwest, but haven't followed up to see if anyone has had any luck with them.

If you come across one of the less common halfbeaks, don't hesitate to give them a try. Just remember that not all halfbeaks come from brackish water!

Acknowledgement: I would like to thank Jim Langhammer for taking the time to review this article and give me some guidance with the genus *Hemirhamphodon*.

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

American Livebearer Association
Timothy J. Brady
Membership Chairman
5 Zerbe Street
Cressona, PA 17929-1513
(570) 385-0573 (H)
(570) 385-2781 (FAX)



Membership

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

HAP Report

Mike Hellweg

Hello all,

The usual late spring/early summer slow down has hit. There were only two submissions in June. Hopefully things will pick up next month!

Welcome to a new participant and a new MASI member, Andy Walker. Congratulations on your first propagation!

...keep 'em green!

Member	Species	Common	Rep	Pts	Total
May/June '06					
Jerry Jost	Anubias hastifolia		V	15	860
Jerry Jost	Hydrocotyle leucocephala	Brazilian Pennywort	V	10	860
Jerry Jost	Mayaca fluviatilis	Bottle Brush Plant	V	20	860
Jerry Jost	Myriophyllum species		V	10	860
Jerry Jost	Najas guadalupensis	Southern Niyad Grass	V	5	860
Charles Harrison	Cryptocoryne retrospiralis	Retro Crypt	V	15	410
Andy Walker	Echinodoras species x Rose	Rose Sword	V	15	15

Tidbits

by Maureen Green

Do you like to entertain on your patio, but pestered by flies? Keep a couple of pots of Pitcher plants nearby. Not only are they beautiful to look at, they attract and devour the flies.

Are you a bird watcher? Put a pond in your backyard, it will attract everything from a hummingbird to a heron. Just remember to put hiding places in the pond for the fish. (It took me eleven years to learn this) !

Never be afraid to play mad scientist. So far, I have discovered three alocasis's and one musa plants that are more aquatic than terrestial. (Sold as terrestials and all search engines engine showed them as such.)

If you are putting a top heavy plant into your pond, remember to put a brick or rock in the bottom of the planter. It will save you a lot of time. One strong wind will topple them.

Finally, if you have a club logo shirt, remember to wear it to the pet stores. They really have a hard time believing that we shop in their stores and spend a small fortune with them!

R&J
FISH
FOOD

JIM
314-638-1134

BAP Report

Steve Edie

Member	Species	Common	Pts	Total
May 2006				
Lawrence Kent	*Haplochromis phytophagus* * #	Christmas Fulu	15	95
Cory Koch	*Eretmodus cyanostictus* **		30	130
Gary McIlvaine	*Labidochromis caeruleus*	Lemon Yellow Lab	10	120
Gary McIlvaine	*Neolamprologus pulcher*	Daffodil	10	130
June 2006				
Gary McIlvaine	*Limia melanogaster*	Black Belly Limia	5	135
Gary McIlvaine	*Poecilia reticulata*	Moscow Blue Guppy	1	136

* = First MASI species spawn (5 point bonus)

** = First MASI genus spawn (5 point bonus)

*** = First MASI family spawn (5 point bonus)

Editor's Notes

Steve Deutsch

This issue we have articles from MASI members Steve Edie, Maureen Green, Mike Hellweg, and Ed Millinger, as well as two exchange articles. Maureen has submitted another collection of short tips or things to think about. As you can see from this and her previous submissions, if you have something to say that may be of interest to your fellow club members, it doesn't have to be a long article you may not have time or material to write; short items of interest to the hobbyist are needed, as well as longer ones. And from an editor's perspective, they help fill in the odd pages. So, don't think it needs to be big to be good.

We also have an update from Ed on service points. I also included the points schedule from the membership book that is being printed, so you can see what you need to do to earn points, and if you think your total is correct. However, if it is not please remember that Ed's job is to add up what is turned into him, so unless he added 2 + 2 and got 3, you need to see the committee chairs for any questions!

Remember, you have two more chances to be entered for the second annual Ralph Wilhelm Publication Award; articles for Sept. - Oct. are due August 15, and articles for Nov. - Dec. are due October 15.

Dwarf Cichlid Nutrition

By Neil Lilliedoll

Reprinted from Sept '03 Cichlid Blues Of the Pacific Coast Cichlid Association

Before you begin reading this article you should first ask yourself a few questions. What are your goals in fish keeping? Do you want healthy little critters inhabiting your plant tank that but need minimal maintenance? Do you want a handsome display of colors from your freshwater fish? Is breeding your main goal? How devoted are you to the feeding of your fish? All these questions should be considered as you read this article and contemplate the various options for feeding available. How and what you feed your fish can impact the behaviors they display.

Like many freshwater tropical fish, Dwarf Cichlids can require as much as 70% protein in their diets. In fact, a wild dwarf cichlid's diet, like most wild cichlids, is composed mostly of live food. Studies have shown that the stomach contents of Apistogramma often contain a combination of fry as well as insects, insect larva and other small critters, as well as detritus (basically waste products off the bottom).

This suggests that Apistogramma pursue moving, live targets as well as foraging in the sand and bottom layers for food. They also require many of the same things that other high vertebrates need. Carbohydrates, polyunsaturated fats, B complex vitamins, vitamin C, magnesium, calcium, phosphorus, etc. are, therefore, important for many of the same jobs they perform in our bodies. Dwarf Cichlids are omnivores and can get their nutritional needs met through the consumption of flake food alone, but they also like nothing better than to find an unguarded group of fry or several erratically-swimming crustaceans (daphnia or brine shrimp) to feast upon. If these are not available, they will usually gladly accept the frozen alternative.

What you decide to feed your fish will be related in large part to what is available to you as an aquarist. However, what is available to you is also related to your level of motivation to supply your fish with the best possible nutritional foundation and your goals in fish keeping. There are ways to collect, raise, culture, prepare or buy almost any food for fish. Feeding your fish can be as simple as finding a flake food your fish will eat and feeding it several times a day. Or it may be as complex as offering a variety of 10 different foods over the course of a week, including foods you've collected and cleaned, foods you've raised from cultures, and foods you've prepared from scratch and then froze for use over and over. Most people fall somewhere in between these two extremes. Since it is my philosophy to emulate the natural condiions of Dwarf Cichlids whenever possible, I try to provide a large variety of foods and let the fish take care of most of the foraging.

There are 3 categories of food for Dwarf Cichlids - Living, Frozen, and Prepared. The majority of the foods in these groups are meat based.

Live (Living) Foods:

Live foods vary in the nutritional value they offer Dwarf Cichlids. It is, therefore, wise to include several varieties in the diet. There are appropriate live foods for Dwarf Cichlids from the smallest newly born fry to the many types of adult species. Living prey is not specifically implied when talking about live food. It can also refer to living foods that were frozen for later use.

A) Brine Shrimp - both adult and newly hatched baby (*artemia* nauplii). 3 types of egg sizes.

B) Daphnia - *Daphnia pulex* is most common. Adults give birth to live young. Easy to culture. Available commercially frozen.
C) Cyclops - can become a pest in the aquarium. Available commercially frozen.
D) Mosquito larva - various species including glassworms. Available commercially frozen.
E) Drosophila - wingless fruit flies. Easy to culture. Available commercially frozen.
F) Tubifex worms or black worms - many species. From polluted waters so must be cleaned well, but fish love them. Difficult to culture. Can become a problem in the aquarium.
G) Earthworms - Found everywhere. Can be cultured, purchased or collected in your yard. Must be cut to size for dwarfs.
H) Bloodworms - Difficult to collect and culture. Excellent, convenient and safe commercially frozen.
I) White worms - roundworm related to tubiflex. Easy to culture. 2.5 cm long.
J) Grindal worms - easy to culture in peat at 70 to 76 degrees. Great for dwarfs. 1.5 cm long.
K) Vinegar eels - culture in fermenting vinegar. Longer, but thinner than brine nauplii. 2 mm long.
L) Microworms - nematodes that -bear live young. Cultures quickly. Great for fry. 2.5 mm long
M) Paramecia - one-celled organisms. Infusoria is general term for micro-critters.
N) Rotifers – nutritious food for new fry.
0) Euglena - one-celled, green water organism. Used for small-mouthed newly hatched fry. Often a food source for other small critters like daphnia, paramecia and rotifers.

Some enthusiastic aquarists go to great lengths to acquire live food cultures through club meetings or over the internet and then raise much of the food their fish eat in their own home. Although this can be labor-intensive and sometimes tricky, it is a very good method for adequately supplying much of the nutritional requirements of Dwarf Cichlids. Buying or collecting live foods, on the other hand can come with a degree of danger. Pollutants, parasites, or other unwanted critters can accompany many of these live foods. So the effort to culture some of them in your home is well worth it. I can tell you that I am convinced of that after losing several spawns to hydra that I assume got into my tanks through the introduction of collected live foods. I have also had problems with parasites because of live foods. This does not imply that I think collected live foods are too dangerous, only that caution should be used in the cleaning and purging of these creatures. Most aquarists that keep Dwarf Cichlids are likely to be fairly advanced hobbyists and would consider carefully what goes into their tanks. If time, space, and availability are prohibiting factors against culturing live food yourself, frozen and prepared foods other possible choices.

Frozen Foods

Frozen foods can comprise a combination of both meat (protein) and many of the other nutrients fish need. Most of the previously mentioned live foods also come in a commercially frozen form or can be frozen for extended storage at home. They often have the added benefit of vitamin enrichment. As stated previously, fish require a diverse array of vitamins and minerals for their proper health. Most of these are within the live foods that they eat in the wild. In the aquarium, if their nutritional needs cannot be met through the foods that they are offered, some other supplement should be included. This role can be addressed through vitamin enhanced frozen or prepared foods.

I use several frozen foods when they are available, but have never prepared my own fish food. I use a number of the frozen live foods, such as daphnia, bloodworms, glassworms, and spirulina enriched brine shrimp. Two of my favorite frozen foods (when I can find them) are prawn eggs and mysis shrimp. Prawn eggs are always tough to find, but the fish love them. They are small enough for fairly young fry to eat and supply fat-soluble pigments that enrich the color of the fish. Mysis shrimp are nutritionally excellent and contain a large dose of the protein, vitamins and minerals that are required

Prepared Foods

Now we come to the easy food - prepared dry foods. The most common example of this is flake food. There are many brands and types of flake food. What you use depends on what your fish will best eat. I prefer OSI Marine Flake. My little guys all seem to really like it and it has a full compliment of good stuff for freshwater fish as well as marine. There are many others that I do not have a great deal of exposure to, so I will not deal with them at length. But they are all good choices to supplement the Dwarf Cichlids diet. Many prepared foods may include a percentage of some of the live food choices listed above, but may not be nutritionally adequate for dwarfs.

A) OSI Marine Flake
B) Cichlid Flake
C) Cichlid Pellets
D) Earthworm Flake
E) Brine shrimp Flake
F) Spirulina Flake
G) Krill Flake
H) Homemade Flake
I) Homemade Pastes
J) Species-specific foods (i.e., Angelfish flake, Discus Formula, etc.)

Fry Foods

Perhaps the most important ingredient to successfully raise Dwarf Cichlid fry to adulthood lies in the food they consume in the first weeks after they begin free-swimming. Aside from frozen baby brine, there are very few frozen foods that are acceptable for most very young fry. Luckily, there are numerous choices from the other two groups of food. The limiting factor is the size of the food and the size of the mouth of each species' fry.

Dry foods, like flake, can be ground to almost powder, but this is not an easy task. It is difficult to grind bits that are a consistent size and appropriate for each species. Homemade pastes (made from egg yolk, for example) can be used for the fry to "graze" on, but can easily pollute the tank water and kill the fry faster than not feeding them at all. There are, however, products that are made for fry that can safely be substituted for these methods. Two examples of these products are Tetra Min for egg-layers, which is a very fin powder and Liquifry No. 1, which is a solution that can be squeezed out of a tube. Both of these are rich in protein and other nutrients and can be mixed with water to create a "milk" substance. If used properly and in moderation, these can suffice for the first few days for the fry of any species that is too small-mouthed to eat baby brine. Care must be given to only feed small amounts regularly though, as the same biological imbalances can occur with the water chemistry in the rearing tank. These products can also be used before the fry are free-swimming to stimulate the production of infusorians that many fry will gladly feed on when they are ready. This has the added benefit of having food available for the fry immediately upon the ability to eat, when it is probably critical for their optimum development.

As stated earlier, culturing live food can be used to have an excellent and constant source of food available for any type of Dwarf Cichlid fry. The staple of most breeders feeding regimen is baby brine shrimp (nauplii). Baby brine shrimp can exclusively provide the nutritional base for a fry development for the first several weeks of their growth. Culturing baby brine is fairly easy. Basically what is involved is putting the eggs in salt water, keeping the temperature at about 80 degrees and aerating the solution. Harvesting can be done in about 18 to 36 hours. It is desirable to use 2 containers to insure that

food is constantly available several time a day for the first several weeks to a couple of months of life (especially if this is - all that you are feeding).

Brine Shrimp Eggs are easily accessible through the local fish store or over the Internet, which may be used to better acquire more specific information on culturing methodologies. There are 3 types of eggs used in cultures of this type differing in the size, hatch rate, hatch duration and size of nauplii. The largest is from Utah (OSI) and has a very good hatch-rate, but large nauplii. The next is the most common and is from San Francisco (San Francisco Bay Brand). The nauplii are about one-third the size of the Utah type and better for the small-mouthed species or for the first few days of any species. Third is called Southern Hemisphere Brine Shrimp Eggs (I have not tried these as yet) and are one-third the size of the San Francisco type. This offers the best chance for getting baby brine to the smallest of fry. However, it is not the only or perhaps even the best choice for those very small fry.

The choices that are available are numerous. What you decide to feed your fish is dependent on many factors. I vary my feeding routine to include examples from all of the 3 categories listed above. I consider it a creatively, valuable process to meet the nutritional needs of differing species in all their various stages of life. I cannot over-emphasize how important it is to be proficient in this area of fish keeping when you are dealing with Dwarf Cichlids.

Moving On

By Ed Millinger

I recently moved from St. Louis to Ste. Genevieve, Missouri (the e after St. is because the city was founded by a woman). This presented both challenges and opportunities. The biggest challenge was to move my fish sixty miles without suffering any losses. The best opportunity was to use my experiences to start over with a fish room built just the way I wanted it.

The fish room in the house I was leaving was located in the basement as is the new one. The old fish room consisted of aquariums on wood and iron stands. Each tank was individually heated with ebo-jaegers. I kept sixteen tanks in the OFR (old fish room) for a total of 561 gallons. The NFR (new fish room) will have eight tanks holding 745 gallons.

There were several things I wanted to accomplish with the NFR. I wanted to eliminate the need to individually heat each aquarium, and I wanted to simplify filtration and water changes. In the OFR I used three different air pumps and six outside power filters. In the NFR I decided to go with one linear air pump that I had heard so many good things about. I will use sponge and corner filters exclusively. What I like about the corner filters is I can use polyfill batting found at craft stores in a large bag for less than three dollars. Compare this with the cost of prefabricated sleeves and you'll see a huge cost advantage.

One advantage I had in making the move was we bought the house we were moving to before selling our old home. This allowed me to set up some tanks and move water that the fish were used to. My favorite fish are from South America where the water is usually soft and slightly acidic. I got a bit of a scare during the inspection of our new home when the inspector mentioned that the water in Ste. Genevieve was hard. I took a water sample home and tested it. I was pleasantly surprised to find the water was softer that what I was using in St. Louis. I tested the water two more times to be sure and found the same results.

When I thought about moving all my fish I soon realized I was in trouble. Klaus Bertich volunteered to keep my swordtails for me. (I told him he could keep any babies born while boarding). I then had some tough decisions to make about what to keep and what to sell. Luckily the spring auction

was approaching. I decided to keep my Altum angels, albino dwarf plecos, some of my favorite Geophagus cichlids, an emperor pleco and a pair of macrostoma bettas.

Mike Hellweg helped me figure out the logistics of putting the fish room together. He advised me regarding how to insulate, how to install the PVC airline and other issues. I lucked out in finding a carpenter, he was the real estate agent that showed us the house. He framed the room and installed the drywall. He also found an electrician to add two outlets and wiring for my baseboard electric heater. Until the room was closed in I had to use heaters, but once the room is complete I will heat the room with the above mentioned baseboard heater. I placed R-13 rolled insulation in the ceiling and walls. I also installed R-4 foam board as a ceiling. After this I suspended the 3/4" PVC pipe for air distribution. Each 125 gallon tank will have two sponge filters and two corner filters as will the 200 gallon. The 55 gallon tanks will have smaller filters but the same number.

As for ease in making those ever important water changes I ran a hose through the ceiling from my water outlets to a 50 gallon container from which I will use a water pump to fill the tanks with a hose. I'll also use a hose running to the drain to remove the water via a gravel vac. This way I should be able to perform all my water changes in less than one half hour.

I was successful in moving all the fish without any casualties. However the Altum angels now six weeks later are still a little skittish. When I first turn on the lights and feed they run like scared rabbits. They hide behind the pieces of slate that they are supposed to spawn on (I know, wishful thinking). I also took the chance to reseal my 200 gallon aquarium that I had bought 14 years earlier.

Keeping *Neolamprologus leleupi*

by Anthony Tu

reprinted from Nov/Dec 03 ***Cichlidae Communique*** of the Pacific Coast Cichlid Association

A couple of years ago, when I heard people talk about keeping *Neolamprologus leleupi* I began to think, "Wow, that sounds like a hard fish to work with." However, that was my first impression of this fish. Later, I found out that *leleupi* is one of the most interesting fish that I have kept. Before I started, I began by reading some articles on *leleupi* from my club's newsletter and fish magazines. What I learned is that it has the reputation of being one of the most aggressive fish in the *Neolamprologus* family. Not all people were successful at keeping or breeding them. A few were successful at spawning them but had problems raising the fry, such as finding the right foods to feed, being killed by the parents or jealous females, and so on. However, such negative feedback did not stop me from trying *leleupi*, because personally I like to take on a challenge.

Neolamprologus leleupi is a unique orange colored cichlid from Lake Tanganyika in East Africa. I started collecting *leleupi* fry here and there, and now I have a colony of 12 fish. Most of my fish came from different sources, so I know that they are not related. Some are from different local breeders, while others are from out of state, some of which I got from the Cleveland ACA convention in 2000. When I first got them, they were about 1.5 inches and they ate like horses. I really enjoyed watching them at feeding time, as they are always hungry for food. In fact, I took such good care of them they grew very quickly.

I keep my breeding colony of *leleupi* at 78-80 degrees F. by using a 125-watt Ebo-Jager heater. I am using a Hydro sponge filter model #4 for filtration. The pH is 8.2 and hardness is 8. I feed them twice per day and keep the water very clean. The foods I like to feed them include a good Spirulina flake, brine shrimp flake and, sometimes, frozen brine shrimp once per week. Light is also important for the breeding process. From my experience, I always keep light on at least 12 hours a day. I wanted my

decorations to mimic their wild environment, as a predator they live in the rocky areas, so I used flowerpots to simulate the caves they would naturally have in the lake.

One day, I saw a few tiny fry swimming on the side of a flowerpot. I said to myself, "My *leleupi* are spawning!" I felt so happy that I had accomplished one of my goals. Breeding leleupi was not as hard as everyone said. I decided to leave the fry in the tank and let the parents raise them. Two weeks later, I checked them again and found out there were only four babies left.

I was worried and decided to take them out of adult tank because other *leleupi* had started to eat them. My first batch was just four fry, and I placed them in a Luna breeder basket. A month later, I noticed that one of the *leleupi* was more aggressive towards the others, so I paid closer attention. The aggressive one was a female who chased others away from her breeding cave. I spent a couple of hours watching them. At first, she entered the breeding cave, deposited some eggs and swam out to chase away anyone who came near her cave. She repeated this act for about 45 minutes to an hour. I did not know which male she would choose.

Leleupi is a smart animal, as I watched closely, I noticed a big male that the female was not as aggressive towards as the others. She swam in front of him and made a signal that told him, "I finished my part and now it is your turn." The big male followed her; he swam straight into her cave while she chased the others away. After he first entered the spawning cave, he also became more aggressive, and was chasing the others away too, yet he kept returning to the cave. He did this for about twenty minutes, and then he swam back out and did not return to the cave again. From that moment on, the female stayed closed to her cave for the next 28 days.

I was so curious that I used a flashlight to check on them. What I saw were many tiny golden eggs on the wall of the cave. After 4 days, I saw some tails were waging, and 7 days later, they became free swimmers. This female was an excellent mom when it came to guarding the fry. The number of fry per spawn has increased rapidly. During the second spawn, I had about 22 fry, and the fifth spawn was 230. I feel lucky because I know that not many local breeders get this size of spawn. Although my numbers are increasing, I have not reached the maximum for my breeding colony.

All fry are fed freshly hatched baby brine shrimp. I like to change 80% of my water every week. Breeding leleupi is no secret, as long as I feed them well and keep the water clean, I know they will produce fry for me.

I strongly recommended to people who want to keep *Neolamprologus leleupi*, not to listen to negative feedback from others. I hope this article will give you some general idea about the behavior of *leleupi* and how to keep them healthy. I also hope that you enjoy your cichlids as much as I do!

Member Classifieds

Charles Harrison (314) 894-9761, csharrison@inkmaker.net -
OTO Chlorine test kit, 4 ounces $12.50 last for about 2 years, detects traces of Chlorine in tap/tank water, and other "Chemicals for the Fish hobby"

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.

Service Points Update

This is an update from Ed Millinger, your points tabulator. Points are earned anytime you contribute to our society or enter a bowl show. The soon to be distributed membership book explains the point values assigned to each activity. The points are also listed on the following page. It is the responsibility of each committee head to turn in points earned for tabulation. If your totals do not look correct, see Ed for a list of what he has recorded for you, and then see the appropriate committee chair for any corrections to be submitted to Ed.

Name	Service Points	Bowl Show Points	Name	Service Points	Bowl Show Points
Ray Alantara	1		Ron Huck	22	
Don Atkinson	9		Jerry Jost	31	
Mary Bates	1		Lawerence Kent	9	1
Jack Berhorst	15		Cory Koch	6	
Michele Berhorst	12		Gary Lange	32	
Klaus Bertich	29	15	Micky Lee	2	
Earl Biffle	1		Gary Mcilvane	22	
Roy Brandhorst	40		Terry McMahon	1	
Scott Brandt	6		Paul Miles	2	
Diane Brown	43		Jim Miller	5	
Bob Buckles	20		Ed Millinger	22	9
Scott Bush	10		Phillip Newell	8	
Tammy Climente	7		Bob Newton	2	
Kathy Daly	3		Brad Riley	3	
Kathy Deutsch	31		Dave Rush	17	
Steve Deutsch	22		Herb Samples	1	
Steve Edie	52		Tom Schnur	1	
Jim Fairchild	1		Michael Silveus	1	
Marie Fairchild	1		Rick Smith	6	14
Marlon Felman	17		Al Storms	1	
Thomas Felman	4		Mark Theby	11	
Maureen Green	4		Rick Tinklenberg	10	
Steve Green	3		Pat Tosie	38	
Charles Harrison	33		Greg Van Asch	2	
Sue Harrison	7		John Van Asch	21	
Dave Hassler	4		Andy Walker	5	
Jack Heller	8		Vickie Walker	1	
Angela Hellweg	24		Norb Wright	7	
Mike Hellweg	51		Jim Yaekel	2	
Alice Hill	5		Rosie Yaekel	3	

Annual Awards:

NOVICE OF THE YEAR and *HOBBYIST OF THE YEAR*

Each year the Missouri Aquarium Society, Inc. recognizes the outstanding contributions of those members performing services for the Society during the calendar year (Jan. 1 thru Dec. 31). Points are awarded for service and involvement in the activities of the Society. At the Annual Awards Banquet of each year, *Novice of the Year Award* and *Hobbyist of the Year Award* are presented to the members accumulating the most points during the preceding year.

The minimum following requirements must be satisfied to qualify for these awards:

1. A minimum of eight (8) points must be earned for attendance at the general meetings.
2. A minimum of ten (10) points must be earned for service to the society other than listed above. These points do NOT include any meeting attendance points earned.

Service points will be awarded to individuals only (Mr. Smith, Mrs. Smith, Child Smith, etc.) and NOT to families (Mr. and Mrs. Doe, Doe Family, etc.)

* * * * *

PARTICIPATION AND SERVICE POINTS SCHEDULE
FOR AWARDS OF *NOVICE OF THE YEAR* and *HOBBYIST OF THE YEAR*

SERVICE	POINTS
Attendance at any meeting	1
Officers of the Society (President, VP, Secretary, & Treasurer)	3/mo.
Member of Executive Council (excluding Officers)	2/mo.
Committee Chairperson (as listed in THE DARTER)	2/mo.
Publication Editor	5/mo.
Society Printer	2/mo.
Bowl Show Judge	1/mo.
Donating Refreshments	1/mo.
Donating Door Prize	1/mo.
Working for an Auction (assigned by Auction Chairperson)	up to 10
Working for Annual Show (assigned by Show Chairperson)	up to 15
Working for Super Bowl	up to 3
Programs given (no points given for programs required by BAP rules.)	5
Published original article or original artwork for THE DARTER One page in length or longer Half page minimum length (A maximum of 30 points per year will be credited for articles. Committee reports are considered a responsibility of the chairperson and will not earn points. No points will be awarded for articles required by BAP rules.)	 5 2
Collating THE DARTER	1/issue
Advertisements sold for THE DARTER (new ads only)	1
Special Services	As awarded by Executive Council

If you have any questions, contact the Points Tabulator. (Effective 1/88)

The Computer Page

Steve Deutsch

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

Addresses are only printed with permission of the owner. If your address is not printed and you would like it to be, please email me at fishfan@i1.net. If you would like yours removed, or if it needs correction, also please email me.

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Club Hopping

Steve Edie

Aug 4-6 – Akron, OH: Greater Akron Aquarium Society – Show & Auction

Aug 13 -- St Louis: Missouri Aquarium Society – Summer Auction

Aug 18-20 – Youngstown, OH: Youngstown Area Tropical Fish Society – Show & Auction

Sept 14-18 - Cape Girardeau - 2006 North American Native Fish Association (NANFA) Convention
http://www.nanfa.org/convention/2006.shtml

Sept 15-17 – Texas: Texas Cichlid Association – Workshop & Auction

Sept 17 -- Chicago: Greater Chicago Cichlid Association – Auction

Oct 1 -- St Louis: Missouri Aquarium Society – Swap Meet

Oct 7 – Bloomington, MN: Minnesota Aquarium Society – Auction

Oct 14 - Cincinnati: Greater Cincinnati Aquarium Society – Fall Auction

Oct 20-22 – Laurel, MD: Potomac Valley Aquarium Society - All Aquarium Catfish Convention

Oct 22 -- Chicago: Greater Chicago Cichlid Association – Swap Meet

Oct 29 – Milwaukee: Milwaukee Aquarium Society - Auction

Nov 10-12 – San Francisco: Aquatic Gardeners Association – Annual Convention

Nov 17-19 – Strongsville, OH: Ohio Cichlid Association – Cichlid Extravaganza

Nov 19 -- St Louis: Missouri Aquarium Society – Fall Auction

Nov 19 -- Chicago: Illinois Cichlids & Scavengers – Auction

Nov 19 -- Milwaukee: Milwaukee Aquarium Society – Swap Meet

Nov 26 -- Chicago: Greater Chicago Cichlid Association – Swap Meet

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

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

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

Xenoophorus captivus The Blackfin Green Goodeid

By Mike Hellweg

I prefer smaller fish, and most Goodeids grow a bit large for my taste. But I think a few of them are perfect. One of my favorites is *Xenoophorus captivus*, what we call locally the Blackfin Green Goodeid, though "Green" can be somewhat of a misnomer as the greenish color doesn't show up on all individuals.

Adult males top out at about 2" and adult females sometimes reach 2 -1/2" – a perfect size for me. They are loaded with Goodeid "personality" and can hold their own without being aggressive. Their thick body, slight hump back, and olive green to brown body color make for an interesting contrast to most other fish in the fishroom. Some males have dark black unpaired fins, and some of the population that is popular in St. Louis right now develops a green metallic sheen over their olive brown base color. In some fish it is so bright that it often completely covers their wide brown lateral stripe.

I keep my colony in a 75 gallon tank with a pea gravel substrate, a few Uruguay Swords (*Echinodoras uruguayensis*) and a single two bulb light fixture over the top. It is filtered with an Emperor 400 and a small fluidized bed filter which together help maintain excellent water quality. There is a growth of algae on the sides and back, and on a couple of pieces of driftwood in the tank. It is kept in the basement outside the fishroom so it stays in the upper 60's to low 70's year 'round, and I do 50% water changes every week. pH is in the low 7 range, and total hardness is about 125 ppm, mostly from carbonates.

The females drop fry pretty regularly, about every two months. The literature says their gestation period is about 55 days. It seems that for a while I get fry pretty regularly, and then all of the females stop dropping for a while – maybe 4 or 5 months – and then suddenly newborn fry start appearing again. I'm not sure if that is normal. Maybe it is related to the daylight length? Their tank is in a room that is exposed to indirect daylight. Broods are fairly small, maybe 15 to 20 fry at a time. The fry are very large – well over a half inch at birth. The adults don't seem to pursue them at all.

Both adults and fry seem to pick a lot at the algae. They also nibble on the leaves of the sword plants, though there is no damage done so I'm guessing they are feeding on something growing on the leaves, probably algae. They are fed a veggie based flake and a spirulina based flake. I also feed them zucchini slices. They eat the inside of the zucchini, but leave the rind alone. They also enjoy squashed peas, squashed or French cut green beans, and slices of banana.

While their status in the hobby seems secure, it is a good idea to make sure we maintain populations of these beautiful little fish for future generations. They are severely threatened or even endangered in the wild due to habitat destruction. So it's up to us if they are to continue to survive.

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

American Livebearer Association Timothy J. Brady Membership Chairman 5 Zerbe Street Cressona, PA 17929-1513 (570) 385-0573 (H) (570) 385-2781 (FAX)

MASI T-Shirt Design Contest Rules
Judging to be held October 19, 2006 at the MASI General Meeting

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

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