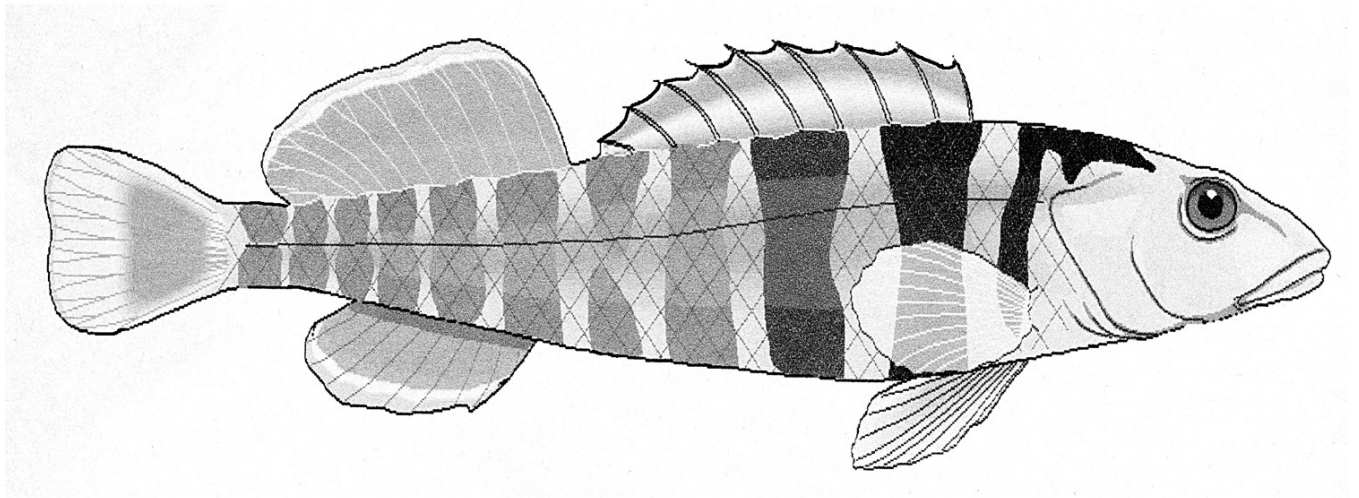


The Darter

July - August 2010



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St. Louis, Missouri

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

Join the all-new MASI FishHeads Forum. See web page for instructions.

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Places to Be / Things to See

SUNDAY August 8, 2010

Auction, 12:00 Start, Gardenville Masonic Hall

THURSDAY August 19, 2010

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

THURSDAY September 16, 2010

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

SUNDAY October 3, 2010

Swap Meet, Gardenville Masonic Hall

THURSDAY October 21, 2010

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

SUNDAY November 14, 2010

Auction, 12:00 Start, Gardenville Masonic Hall

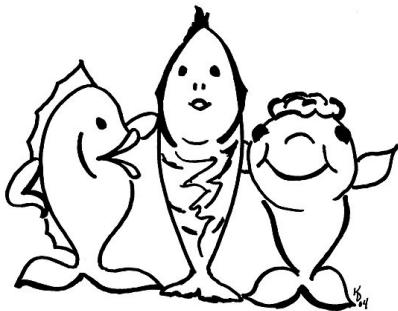
THURSDAY November 18, 2010

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

THURSDAY December 16, 2010

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 Ron Huck, our membership chair.

Presidential Preamble

By Mike Hellweg

Well folks, this will be the last time you'll be reading the Presidential Preamble, at least for a few years. I have greatly enjoyed the almost 14 terms that I have served as president over the past 20 years, and am honored that you chose to give me so many chances to serve you. Steve Edie will be taking over the duties as MASI President beginning on July 15, 2010. I look forward to seeing some great changes as Steve brings his ideas into being. This will be a great time for MASI!

Many people have come up to me and thanked me for my service and for the "great job" I have done. I appreciate the recognition, but in truth, what has made my job "great" is not anything that I personally have done, but rather what you all as a group have done. I just get the credit. I'm honored to say that I've been surrounded by a great group of volunteers. They are the ones who have done the "great job", not me. I would like to take this opportunity to thank all of them – Council members, Committee heads and members, and members-at-large who stepped up when there was a need.

Nothing in this Society happens without volunteers, and no new things ever happen without someone stepping up and saying "I'll do that" or "why don't we try this". I'm sure Steve will be as open to your ideas as I have been, if not more so. If you have any ideas please bring them to the Council. This is the way many great things have started such as our BAP, HAP, monthly bowl shows, etc.

Finally, I would like to apologize if I have offended anyone either by my actions or decisions, or by inactions on some idea that you have brought forward. Every idea that came to my attention was brought to and considered by the Executive Council. I know that not everyone was happy about every decision that was made, from show/auction location to ballot design to ending the Yahoo group and creating the Forum.

One thing I have learned over the years is that we just can't please everyone all of the time. We have worked as hard as possible for all of you to please as many of you as possible, but I know not all of you were happy with every decision or action. All I can say is that all of these things were done after much debate and consideration, but always with the best interest of the Society as a whole in mind, and not for any individual reason or to cause distress to anyone. We have tried to implement as many new ideas as possible, and I hope the majority of you will find them beneficial to the organization as a whole. Please realize that what might seem like a great idea to you may or may not be seen as beneficial to the entire Society, and that is what matters – how it will affect the whole.

One of the great things I have found about members of MASI is that we can disagree about ideas or programs, but in the end work through those disagreements and remain friends working together for the betterment of the Society for all. I'm glad that I can honestly say that I consider every MASI member a friend. I don't think there are many groups around that can say that!

Thank you for electing me to the Executive Council for the next year. I hope I can continue to contribute in some small way to the success of the Society. If any of you want to bring suggestions or ideas to the Council, I will continue to act as your advocate and be happy to present them to the Council.

Remember that when it is all said and done this is a hobby – a pleasurable, peaceful and relaxing pursuit entered into purely for enjoyment. It is about the fish, the camaraderie with fellow members, and fun!

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

Keeping & Breeding *Lamprichthys tanganicanus*, The Tanganyikan Killifish

By Kurt A. Zahringer

Several years ago, my dear late grandmother gave to me for Christmas a book entitled the “Encyclopedia of Aquarium & Pond Fish”, by David Alderton. Although a simplistic coffee-table-book, I instantly loved it, still being a rather novice aquarist. The book’s major fault was that it tried to cover every possible type of freshwater, saltwater, and pond fish, thus not doing justice to any one area. While perusing my new book, I came across this chapter on curious little fish called “killifish”. I was intrigued by their gorgeous colors, but soon dismissed them upon seeing that many required live foods and had only a year life-span at best.

However, the book did feature one species, whose caption was entitled “Unusual Killifish.” Here I saw a pair of fish that sported intense metallic blue with gold spots. The fish was referred to as *Lamprichthys tanganicanus*, the Tanganyikan Killifish. I marveled at these beautiful fish & decided then and there that I must have them. Coming from Lake Tanganyika, they must surely do well in my extremely hard well water that had always been the bane of my South American fish and encrusted all my tanks & equipment in hard mineral deposits.

I proceeded to ask my friend Kayvon at my local pet store if he could obtain these fish for me. He had never even heard of them. He inquired about them to his supplier, but she had never heard of them either. Quite dejected, I began to search the internet for this species. My searching yielded very limited info and only one useful article: the author who had kept these fish explained that this killie was rarely brought out of Africa because it was so terribly delicate. He explained that if these fish are ever caught in a net, they often thrash so hard that they kill themselves, apparently breaking their delicate spines. Wonderful, I thought to myself. There’s no way to get them at all. So, feeling quite defeated, I mentally shelved the thought & moved onto other things.

However, about a year and a half later, I was killing time on the computer, trying to decide what to put in my next tank. I was hashing over species I’d considered in the past, and the killie came to mind. Upon searching again, I was surprised to find one African cichlid dealer that had some offered for sale. He wanted \$15 for babies, but this didn’t surprise me, given the rarity of the species. Then, I saw that he was located in Cincinnati, OH. The aquarium club I’d started at MU had already made plans to take a trip that Spring to the Newport Aquarium outside Cincinnati. I e-mailed the website to inquire about the fish, and he forwarded my message to the breeder from whom he got the killies. I then made arrangements to pick up the fish in Cincinnati.

The breeder was very friendly & helpful, and offered me slightly smaller ones for only \$10 each. I had asked the breeder to sell me seven, but when we met, he was kind enough to give me two extras to cover losses on the way home. The nine little babies were the size of typical neon tetras and looked rather like nondescript silvery-blue guppies, but I knew what beauty they held in store.

Miraculously, all nine fish survived being in the bags for the remaining 36 hours of the trip, before finally making it back home. I carefully transferred them to a 15-gallon aquarium, which held only my unconditioned well-water. As soon as I released them, I noticed them striking at small bubbles on the water’s surface. Seeing this, I gave them a little flake food, which they immediately ate with enthusiasm!

This brings me to my first insight on this specie’s husbandry. For all their other hypersensitivities, they are not picky eaters! Unlike most killies that will stubbornly refuse all but live foods, the Tanganyikans will eat almost anything they can fit in their mouths. The only food I’ve seen them refuse was mini cichlid pellets, which were probably too big for their tiny mouths. They seem to eat live foods just as eagerly as frozen foods, so I’ve taken to saving my live foods for fish that really

need them. I tried to feed them at least four times per day, more than I had ever fed a fish before, with flake foods, live baby brine shrimp & frozen bloodworms & daphnia. At the breeder's suggestion, I would first feed flakes, then return a short while later & feed a live or frozen food. His rationale was that the slow-to-digest flakes would keep the richer foods in the gut longer, thus improving their absorption. I haven't run an experiment comparing this feeding regimen to others, but they seemed to grow quickly enough.

After only a few weeks, one of the males began to take on the gorgeous adult coloration of electric blue with gold spots on the body and fins. This male has always been the forerunner in size, and developed a conspicuous hump to his head. I have not read any other source that confirms the dominant male developing such a cichlid-like hump, but this is merely my observation. Interestingly, some of the other males have since surpassed him in size, but he retains his frontal hump & continues to monopolize the females.



Dominant Male - notice the humped forehead

The Tanganyikan killifish is a very unique species in the world of killies. It is the largest killifish in Africa and one of only two species found in Lake Tanganyika, where it is endemic (the other species is *Aplocheilichthys pumilus*). Thus it enjoys the hard, alkaline water typical of Tanganyikan cichlid setups. In many regards, this species is more reminiscent of a rainbowfish than a killie. While most African killies are quite aggressive to each other, these killies naturally swim in large schools. While the males will

occasionally spar, this is mostly limited to displaying to each other in an antiparallel manner with erected fins without any real harm done. They have a longer lifespan and slower growth rate, and breed much like a rainbow. Even in appearance, many people who seem mine first mistake them for rainbowfish.

However, males and females are markedly sexually dimorphic. Males sport the brilliant blue & gold spots and grow to a whopping 6 inches, sometimes even larger. Females are much smaller & are a blue/silver with a teal sheen. Even from a small size, they are easy to distinguish: the males have a long parallelogram-shaped anal fin, whereas the females have a short triangular anal fin. The breeder explained to me that even though they can reach such a grand size, they'll reproduce at a mere 2.5 inches.

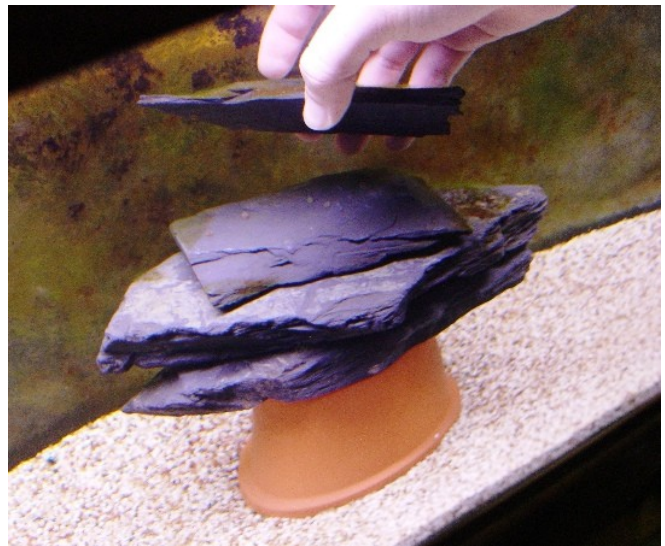
Mine grew at a decent rate & I first saw them displaying breeding behavior only a few short months after having them. I pulled out the eggs, but they all quickly fungused over. I decided that they were probably still too young and like many young animals, were going through sexual behaviors before actually being completely sexually mature. I decided to let them be for a while and allow them to grow a bit more.

However, I saw them spawning regularly. Although they've spawned at all times during the day, they appear to spawn most frequently in the evening. The dominant male will comb over the rocks, seemingly looking for suitable nooks to place the eggs. He'll then dash to the school & separate out a female. He'll keep her in his control by frequently displaying to her perpendicularly and then rapidly swimming in circles around her. Doing this, he'll lead her over to the rocks where she seems to inspect the site.

I've observed them spawn immediately on his chosen site, or the female may search on her own before spawning. While this is going on, the male will repeatedly rush toward any nearby males to keep them away from his female. Eventually, they'll snuggle up together and quiver as they expel their eggs into crevices (I've found eggs several inches inside crevices in the rocks). I haven't noticed any specific trigger to make them spawn. Once they get going, they just do it daily. Frozen bloodworms seem to give the best egg-production.



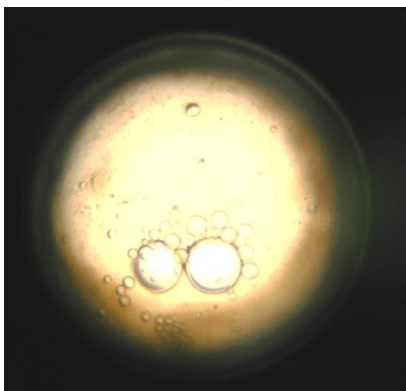
Slate Used for Spawning



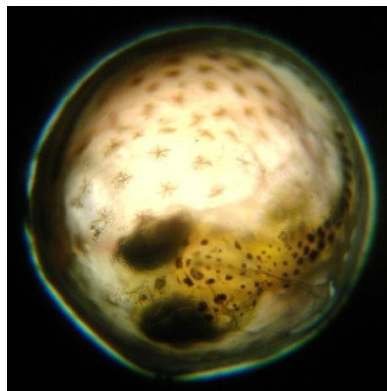
Paydirt!

The eggs are enormous, considering the size of the females: around 3 mm in diameter. They also have a definite red coloration to them. In their first tank, I frequently found eggs snugly pushed into the holes of a piece of lava rock. The breeder recommended to me stacking up several pieces of slate, leaving numerous thin crevices between each layer. They would then push the eggs in between the layers of slate. I reproduced this setup and it has worked extremely well for me. Be sure to use unevenly fractured pieces of slate; not the perfectly flat stuff used for tiles. The key is to have crevices of about the eggs' diameter in between each piece of slate. Periodically, I would very carefully un-stack the rocks, lifting each layer straight up. Eggs sometimes stick to the underside of the upper rock. I'd then carefully pick the eggs off with my fingernails and transfer them to hatching cups.

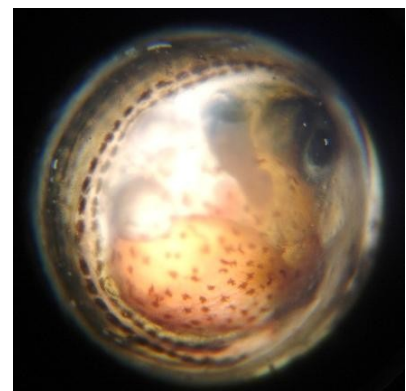
The eggs have a distinct red coloration from the beginning (not scarlet red; but more like the flesh of a tomato). I frequently found a minority of colorless eggs amidst the normal red ones, which I first believed to be infertile because these always succumbed to fungus rather quickly. However, I've since noticed that some of these colorless eggs do develop and will hatch as normal. I have yet to determine how or why these eggs are different. The eggs are round yet flattened in shape; rather like a



Freshly Laid Egg



12 Days; Head & Vertebrae Visible



19 Days; Ready to Hatch

jelly-doughnut. After 1 week, the embryo's eyes become visible in the egg. Over the 19-23 day incubation period, the eyes become more prominent and shiny. The embryo's curled body becomes more and more visible and the egg loses its coloration a few days prior to hatching. Even among batches of eggs that I know were laid in one 24 hour period, I've still had them hatch over the course of 3 days. I have never witnessed the fry hatching, as they always emerge overnight. The newly hatched fry have a very long, thin, black body, almost 7 mm in length.

These fish are very hyper creatures, even from birth: The constantly dash around the tank, mostly in the top/middle region. Unfortunately, this has led to several of the males developing a large callous on their lower lips from constantly rubbing up and down the glass. I recently painted the back and sides black, which has seemed to help somewhat.

These fish are jumpers, so make sure your aquarium is well covered. Actually, the only individual from the original 9 that I ever lost was due to it jumping out. Even though the tank was covered with a "full top" (the plastic black ones), she apparently jumped out through the gap in the hinge, which was no wider than her body. I then switched to a glass top & would suggest anyone else keeping these do the same. One thing to note: for some reason, these fish become extremely skittish after the lights go out. I have walked by their aquarium after dark, and they begin to frantically rush around the tank and jump repeatedly. After seeing this, I just avoid their tank after dark so they don't hurt themselves.

Also, concerning the reports of not being able to net these fish, the breeder of my parent fish agreed with this, so I've never netted mine. Whenever I've transferred the fish, I use a pitcher for the adults, or a ladle for the babies. I've never wanted to find out for myself if this is true, as I try not to run experiments where the null-hypothesis is killing my fish.

Wanting to protect my investment, and knowing I'd not have another chance to get these anytime soon, I resolved to take extra-good care of these fish. Since I first got them, I have religiously performed weekly water-changes of about 10-20%; more often than I've done on any past aquarium (several sources advised against doing anything bigger than 20% at once for this species, so I've always done these smaller water changes).

Once they became fertile, the parents were very prolific, laying 60-70 per week eggs at first, and now over 100. At first, I would collect eggs during the weekly water changes, but I've noticed egg-production seems to increase if I collect them twice a week instead. At first, I collected eggs and then put them in a net-breeder in the same tank. However, I was losing most of them to fungus. At Mike Hellweg's suggestion, I began incubating them in separate cups with the addition of salt & Aquarisol at the rate of ½ tsp. and 3 drops per gallon respectively. I would then change out the water every 2 or 3 days. This helped very much, taking my loss rate down to 20% or so, versus 90% before. I've also experimented with the addition of methylene-blue, which seems to work well too.

The fry will take San Francisco baby brine shrimp and Hikari First Bites from the first day. They decidedly eat at or near the surface and usually ignore food once it has reached the bottom. For this reason, I would recommend keeping snails with the babies and bottom-feeders with the adults to prevent build-up of uneaten food. Since they usually only occupy the upper third of the tank, they combine well with most Tanganyikan cichlids and catfish. I've kept mine with *Synodontis* (which I bred simultaneously in the same aquarium) as well as *Julidochromis*, *Neolamprologus*, and *Xenotilapia*, with all of which they coexisted peacefully. If using the slate method of egg-collecting, they even can be bred with these other fish in the tank, as they're unable to reach the eggs tucked far into the cracks. They create a stunning display and complete a Tanganyikan biotope well, as most other cichlids occupy the lower third of the tank.

When raising the fry, I can't stress enough the importance of small water changes. With very few exceptions, the only fry I have ever lost were during water changes. At first, I raised the babies as I did all other species up until that point: keeping them in small acrylic tanks & doing ~80% water changes every other day or so. However, very quickly, I began to lose fry after every water change. At

first I thought it may be because I was temperature-shocking them, but even after matching the temp perfectly, I would still lose anywhere from a few to half of them during every water change.

So, knowing that I raised the initial 9 as I did, I moved all the babies to a 10-gal tank. Since then, I have done 20% water changes every 5 days or so and have only lost 2 or 3 fry in the past month (versus the 2 or 3 every other day before). Now, I simply put the babies in a 10-gal from day 1, with very good results. To the experienced aquarists out there, I know this heresy to advocate against large, frequent water changes, but I've found it to be necessary to successfully rearing this species. At the ACA convention of 2009, I met a veritable cichlid expert who had obtained and killed this species 3 times in the past. I know this person to be one that prides herself in doing massive water changes daily. While I'm sure her cichlids absolutely adore her for this, I suspect that these killies just don't thrive in the constant turmoil of these huge water changes.

In the past, I would read articles on certain delicate species and the authors recommending weekly water changes. At this time I was still performing monthly water changes at best and thought I'd never have the patience to do that weekly! However, after doing it for the Tanganyikans, I've grown quite accustomed to the weekly schedule & it's not all that bad. I would have to say that keeping this species had helped me grow by quite a bit in my abilities & confidence as a fish-keeper. If one's up to the challenge, I feel that keeping a notoriously-difficult species provides the necessary motivation to the up-and-coming aquarist for sticking to a more stringent maintenance routine.

Member Classifieds

Wanted: White worm or Grindal worm culture. Contact Tony McMillan (618)509-3985 or tonymac.mcmillan760@gmail.com

I have bloodworms and brine shrimp. Brine Shrimp eggs \$32 for 16 oz. can. I am looking for a 200 gallon tank. Jim Miller, 314-638-1134.

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

Thiosulfate crystals (Chlorine Remover)	\$3.00 a half pound
OTO double strength Chlorine/Chloroamine 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
Bromthymol Blue pH test solution, 4 ounces	\$.7

Wanted: Small Styro shipping boxes - 12 x 12 x 12 or a little bit smaller. If your company uses them and throws them away, save them! Bring to the meeting or I'll come pick them up. Mike 636-240-2443

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 it, in which case it will run as requested.

New World Cichlid Families Seek and Find

By Pat Tosie

S A J E I V C M C L E I T H R A C A R A U O L A I O B A R K S
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M A S I Q U E M N I P S K R O B A R A C A T E A L C O P O R A

Seek and Find the New World Cichlid Families

Acaronia
Aequidens
Amphilophus
Apistogramma
Archocentrus
Bujurquina
Caquetaia
Chuco
Cichlasoma
Cleithracara

Copora
Dicrossus
Herichthys
Heros
Herotilapia
Hoplarchus
Hypselecara
Krobia
Laetacara
Mesonauta

Nannacara
Nandopsis
Neetroplus
Petenia
Taeniacara
Theraps
Thorichthys
Tomocichla
Vieja

Product Review: Marineland Canister Filters

Steve Edie

At the 2009 ACA convention in Cincinnati I happened to stop by the Marineland exhibit in the vendor room where they had a display of their new line of canister filters. Being a longtime user of their Magnum canister filters, I decided to give them a look. They had a floor model that they disassembled and reassembled to show how it worked. (Things always look easier without the water.) They make several different size models - 160, 220, 360, and 530, which equate to gallons per hour flow rate. A couple of months later, I decided to purchase a model 360 to upgrade a 150 gallon tank that I was resetting up. Compared to the Magnum 350, it is a much larger filter, with multiple compartments for various filter media. Configuration wise, it is similar to the larger Eheim canister filters, but at about half the cost. There are four media trays which are stacked in the filter so that water flows through each of them from bottom to top with no bypass. The bottom tray has two coarse sponges that collect larger particles. The next tray holds a couple of nylon mesh bags of carbon, but one can also use additional nylon bags here for ammo chips, Chemi-pure or any of the phosphorus or nitrate resin type absorbents. I guess one could also use bags of crushed coral if trying to raise pH or bags of peat to lower pH. The next tray is filled with plastic bio-balls. The top tray is filled with ceramic rings and is topped with a fiber "polishing pad." So the filter covers all of the required filtration types – mechanical, chemical, and biological. Instead of two hoses (intake and return) with individual quick disconnect valves, both hoses mount into a single module that shuts off and releases from the filter with a simple lock lever mechanism. One could also add an inline UV filter to the return hose if desired. There is a pump primer button on top of the filter to fill it with water from the aquarium. On initial setup of the filter this took repeated pushes to get the filter to fill with water. However, after cleaning, when the hose is already filled with water, just one or two pushes easily started the siphon to refill the filter. Big plus over the Magnum.

So how does it perform? This filter holds considerably more biological media than any filter I have ever owned, so water purity is very good. The unit is quiet once all of the bubbles are forced out of it, since the water flows into the bottom and is pumped out of the top. In the Magnum, water flows into the top and is pumped out of the bottom, so any trapped air gurgles unless the filter is burped. This is a pain but I've done it so often that it doesn't take much time to do. So, top marks for performance and initial setup.



Maintenance wise, it gets mixed grades. There is no on-off switch or lever like on the Magnum, so the unit must be unplugged for maintenance. The shutoff valve works very effectively and plugs the water in the hoses but does not seal the inlet/outlet ports on top of the filter itself. The motor does not separate from the filter like the Magnum when removing from the aquarium cabinet, adding to the weight. When the filter is full of water it is heavy – it weighs 36 pounds and wrestling it out from under a wood cabinet with limited access is tedious at best. It also has to be held fairly level when carrying to avoid spilling water out of the open ports at the top. It then has to be tilted over a sink to pour out some of the water before releasing the retaining clamps to remove the top motor section. If the clamps are released without pouring water off of the top, you will be greeted with a half gallon or so of water spilling out on the floor or wherever the filter is sitting. Due to its size it doesn't easily

fit into most sinks, and as the individual trays are lifted out they drip a lot of water. The sponges in the bottom tray can be squeezed and rinsed to clean and they hold a surprising amount of crud. They are durable and should last for numerous cleanings before needing replacement. The media bags are easily refilled with fresh carbon or resins. The bio-balls and ceramic rings rinse easily and should last forever. The polishing pads collect a fair amount of very fine particulates and are too flimsy to be cleaned and reused, so they must be replaced. So replacement media cost is limited to the pads and carbon, which is reasonable given the capacity of the filter. The trays snap into place very precisely and the top assembly clamps to the filter box securely, so there is no water leakage around the seams. Sometime the Magnum would seep water if the o-ring was even slightly misaligned. Each time I clean the filter, it gets a little easier since I've learned the quirks and how to deal with them. My memory's fuzzy since it's been so many years, but I probably had mixed feelings about the Magnum at first also. The Magnum certainly has its quirks, but I've gotten so used to them I don't even notice them anymore. That will likely be the case with this filter also.

So, considering pros and cons, would I buy it all over again? Umm, I guess so, since I recently bought another one for a 135 gallon tank. Both tanks also have Penguin 350 power filters that are cleaned more often than the canister filters. Water quality in both tanks is excellent. Would I buy the larger model 530? No, I wouldn't, because I wouldn't want to wrestle that even heavier mother out from under the cabinet to clean it. If more capacity were needed for larger tanks than mine, I would probably get two of the 360's rather than one of the 530's. The smaller filters, 160 and 220, don't have as many trays as the larger ones, so will not have as many different media options, but will likely do a good job on smaller and medium sized tanks. But regardless of your tank size or filter choice, remember there is no substitute for regular water changes.

A Different type of Jewel - *Hemichromis frempongi*

Patrick A. Tosie, Sr.

One of the early popular and most common cichlids was the Jewel cichlid or Red Jewel. Early names erroneously labeled them *Hemichromis bimaculatus*, however it was later found to be *H. guttatus*. The *Hemichromis* family is commonly referred to as the jewel cichlids due to their bright coloration and iridescent spotting. The jewel cichlids are popular to many freshwater aquarists due to their striking colors (predominantly Red), their strong parental care, and for the most part their ease of breeding. Along with the bright colors they bring along a reputation as one of the most aggressive cichlids for their size. The *Hemichromis* family consists of somewhere around 30, and counting, species.

All *Hemichromis* are monogamous pair formers that will spawn on a flat stone or other hard surface, although some will also use caves provided. Both parents play a role in raising the fry the male guards the territory while the female keeps close to the fry. They are undemanding to water chemistry but prefer the pH to be in the range of 6.0-7.0. Sexing is difficult, although the female grows to a slightly smaller size than the male.

Hemichromis frempongi is one of the genus which comes to us from Lake Bosumtwi in Ghana and it gets a maximum size of 8 inches. It is easy to mistake *H. frempongi* for *H. fasciatus*, differences include the *H. fasciatus* are larger, getting over 10-inches in length and the red coloration is more pronounced and extends farther, to the anal fin, in the *H. frempongi* and the size and surrounding spots of the five black spots which mark the fishes flanks. In *H. frempongi* these spots are smaller and the small iridescent silver spots which surround these markings in *H. fasciatus* are absent in *H. frempongi*. Like *H. elongatus* and *H. fasciatus*, *H. frempongi* is an elongate predatory species.

To successfully keep *Hemichromis frempongi*, they are very aggressive and a predatory fish that requires live food for successful breeding, you should keep them as a pair, and if you plan to keep them together with other fish, be sure to have fish that are equally sized with plenty of room. Even when kept in schools, a pair will divide off and slowly kill their tank mates. They should be kept well fed so that their aggression is kept to a minimum. The aquarium should be set up with driftwood and stones that form caves and hiding places. Frozen and dry foods are accepted as well, but they are kept in their best condition when fed live foods. For breeding, buy a large group of young and you may be lucky enough to end up with a pair, or finding a good matched adult pair (I received my pair from Gary Mclivaine, thank you). I have not had much success when trying to introduce adults to one another. I tried on several occasions to introduce adults, but always ended with one.

These fish are mean! Really mean! Nasty mean! It's like they enjoy hurting the other fish. They look and act like they have no fear of anything in the water. I introduced six, 3-4 inch juveniles to a 150 gallon tank that had Convicts, Jack Dempsey's, Firemouths, and Nicaguenses, with many hiding places. The *frempongi* were by far the smallest fish in the tank. In no time, the Firemouths lost their tails, the Convicts fins were shredded, the Nicaguensis were shredded and ½ dead, and the Dempseys didn't seem to get injured, however, stayed on the opposite side of the tank. The *frempongi* were just as bad on each other and I ended up with only one *Hemichromis*. I removed him to a 50-gallon tank and started growing him up.

When he was about 6-inches, Gary gave me a few of his, since he had a couple pair off, and I rearranged the tank and introduced them to my lone fish. The next day I was back to one fish. Some time later, Gary gave me his pair and I set up a 40-gallon breeder sized tank with some driftwood, a few caves, some fake plants, some *Gambusia* (which did not last very long), and several rocks. The pair adjusted to their new surroundings without incident.

About a month or two later, the pair colored up. The red was a beautiful red color and I know something was going on. A few days later the pair came out with a swarm of fry around them. The fry were very small, 1/8" maybe. I left the fry with the parents for two weeks and then siphoned a group of them off so I could save them for BAP. As I said earlier, and as I was told by Gary and Kory Coch, these fish are mean. While the parents were guarding the fry, anytime I would come close to the tank, the male would come right up to the glass as to tell me to stay away! He was not afraid of anything. When I would open the top to feed them, he was right there while the female stayed under the rocks. The only time she would come out was whenever I would put feeders in the tank.

Water conditions do not play a very big role in their upkeep, temperatures between 70° - 85° will work fine, pH from 6 - 8 will work for them as well. Water changes from 20%-30% every other week seem fine. Keeping several rocks, caves, driftwood or plants (plastic or real) seems to keep the quarreling to a minimum as does constant feedings of live foods. Live fish work the best, red worms, black worms and nightcrawlers are only eaten when feeder fish are not available. Frozen foods are readily taken, pellets and flake food should only be used as a last resort.

The raising of the fry requires much feeding; if food is not always available the fry tend to cannibalize on each other and you will end up with just a few fry. The parents keep a close eye on the fry and are good parents as long as they are kept well fed.

Not many freshwater fish compare to the bright red coloration of *Hemichromis frempongi* when breeding or in parental care coloration, they are just spectacular. When guarding fry they are just breathtaking to watch, seeing their beauty and knowing their temperament, having a school of 1/8" fry surrounding 7" parents whose teeth are easily seen, is just a sight to behold.

If you have the tank space, and plenty of fish that you don't want, I would suggest *Hemichromis frempongi* for their beauty as well as their attitude. They will keep you frustrated, angry, amazed, and wanting to see more. You will enjoy watching them eat and if you get lucky enough to have them breed, you will be mesmerized at the site of these predatory fish swimming around with their tiny fry. For a different "fishy" experience, try them out!

Back to Burkina Faso: Bringing Home Jewels and Whales that Can Kill

By Lawrence Kent

Last month I went back to the West African country of Burkina Faso and its capital city of Ouagadougou (pronounced ‘wogga-DOO-goo’) to participate in a conference on agricultural biotechnology. While there, I was able to make two quick trips to the artificial lake on the city’s edge to look for tropical fish. That lake is called “Le Barrage” after the French word for dam.

This wasn’t my first time to Burkina Faso – about 18 months ago I made a similar business trip to this country and also found time to discover its fish. I documented that adventure in an article published in *Tropical Fish Hobbyist* in June 2009. This time my work schedule was very tight – the conference ran from 8:30 in the morning until late at night – so I realized the only time I’d have to visit the lake would be very early in the morning.

One Sleepy Fisherman and Six Species of Fish

I left my hotel at 5 a.m. two days after my arrival and headed to a group of shacks on the edge of Lake Le Barrage where I knew the fishermen lived. It was dark and quiet when I got there, and I found one fisherman asleep on a bench outside his shack. I woke him up and explained that I was looking for small tropical fish. The old man didn’t hesitate. He wiped his eyes, grabbed his cast net and walked me down to the water’s edge. A few minutes later he was throwing his net into the lake then hauling it in filled with dozens of small fish.



Fishing before the sun comes up on the outskirts of Ouagadougou

At first it was hard to see exactly what the fisherman had caught, because it was still dark, but soon the morning light arrived and I could examine the catch, stored in a bucket. Another fisherman joined us to help. There were six species of fish.

The easiest ones to identify were the Jewel Fish (*Hemichromis bimaculatus*) because of their red flanks adorned with blue spangles and characteristic black spots (one on the gill cover and one mid-body). These cichlids are truly beautiful jewels, and they are familiar to many tropical fish hobbyists worldwide.



Juvenile *Tilapia zillii* caught at Lake Le Barrage



Ibrahim the fisherman examines the 'baby whale'

Among the catch were also small silver barbs, probably *Barbus macrops*, small Nile tilapia, (*Oreochromis niloticus*), small Redbelly tilapia (*Tilapia zillii*) and a silvery, high bodied cichlid that was most likely *Sarotherodon galilaeus*. The Nile tilapia could be distinguished by the zebra-like barring in their caudal fins, while the Redbelly tilapia could be identified by characteristic yellow spots in their dorsal and caudal fins.

Most interesting, for me, was a single mormyrid – a three inch grey fish with a stiff, laterally compressed body, an elongated caudal peduncle, a blunt head, and a cute little mouth. In the tropical fish hobby, these blunt headed mormyrids are often called “baby whales” although it’s a bit of a stretch to claim this resemblance. In any case, mormyrids are particularly interesting, so I asked my fishermen friends if we could catch some more.

We tried a few more casts of the net that morning but caught only one more baby whale. I’d run out of time and needed to grab a taxi to go back to my conference, so I let the fishermen know that I would come back the following day.

And so I did, again very early in the morning, and I found the fishermen waiting. They’d understood my interest in the mormyrids and had caught a half dozen more to show me. I took out my small glass photo tank, put it on a wooden table across the street from the lake, and started taking pictures with the fishermen’s help, moving the fish one by one from the bucket into the tank. We photographed the baby whales, a few cichlids, and a couple of wonderful Senegal bichirs (*Polypterus senegalus*) that were being held in the same bucket.

Jurassic Fish

The Senegal bichir is a snakelike fish sometimes labeled as the “Dragon fish” or “Dinosaur fish” because of the primitive looking bent spines on its back. It is sometimes available for sale in the United States under the “Jurassics & Oddball” category of freshwater fish, and can grow up to 12 inches in length. There are plenty of reports online of Dinosaur fish devouring their tankmates and biting the hands of their keepers.



Polypterus senegalus, the Senegal Bicher or Dinosaur Fish

The following day the conference ended and I needed to fly home. I took with me four of the baby whales, one of the bichirs, and a trio of the Jewel fish in breathable bags. By the time I arrived in Seattle, 20 hours later, only two of the whales and the Jewel Fish were still alive. I put them into my 45 gallon ‘West African tank’ in the basement, which was already stocked with ten juvenile *Pelvicachromis taeniatus* “Lokunje” and five Debawi catfish (*Pareutropius buffei*). The whales seemed to settle in well, swimming about vigorously, but within 24 hours – much to my chagrin -- one of them killed the other!



Brienomyrus brachyistius in a photo tank across the street from Le Barrage Lake

I went online and learned that aggression between males is a problem in captivity – apparently one should only keep one male per tank, unless one has a group of six or more fish to disperse the aggression. Well, now I had only one male per tank. Next time I guess I should do a bit more research *before* introducing new fish. But what species of mormyrid was this exactly?

I emailed a photo to Mike Hellweg, who is a friend and a tropical fish expert. Mike did some research and informed me that he believes it to be *Brienomyrus brachyistius*. I quote from his email:

“I had a hard time finding it. It has a very unusual head for a mormyrid. Almost all of the shortnose (or whalelike) mormyrids have a larger area above an underslung mouth. Yours has a head that is almost even above and below the mouth. It also has a much thicker caudal peduncle than most of the other species. Plus it has red on it. Most mormyrids are shades of brown, gray and black. I finally found it in Harouto Koder's book Jurassic Fishes on page 28. I was unable to confirm this with other photos. Apparently his photo is the only one published. Yours would be the second if you publish it, and I would bet that it is a male in breeding coloration, as the shot Koder has published shows only a small amount of red on the caudal peduncle. “

It's true that the red color on this baby whale is remarkable. I emailed one of the photos to an ichthyologist at the University of Ouagadougou – Dr. Adama Oueda – and asked his opinion. He felt that the red color on the fish was primarily a function of stress, but also confessed that he struggles to identify such mormyrids – there are about a dozen species in Burkina Faso. Dr. Oueda's doctoral thesis notes the presence in Burkina's lakes of *Brevimyrus niger*, a species very similar to *Brienomyrus brachyistius*.

I also did a bit more research on *Brienomyrus brachyistius*, learning that these are electric fish that rely on the waveform of discharges from their electric organ to communicate their species, sex, and social status, while they use the sequences of pulse intervals for communicating rapidly changing behavioral states and motivation. Wong and Hopkins induced spawning in *B. brachyistius* in a laboratory setting and monitored the waveforms to assess communications. Their research results are described at <http://jeb.biologists.org/cgi/content/full/210/13/2244>.

Protective Parents Back in Seattle

Meanwhile, the Jewel fishes made themselves right at home in the heavily planted tank. A pair colored up in bright red hues, courted, then laid eggs on the substrate next to a piece of bogwood. A couple of



This pair of Hemichromis bimaculatus 'Burkina Faso' rapidly spawned back in Seattle

days later I found the new parents escorting around the tank a group of forty tiny fry. At first I was thrilled, but that emotion evaporated when I noticed the carnage – the Jewel Fish had hunted down and killed nine of the ten *Pelvicachromis taeniatus*. One of the parenting skills of these Jewels involves eliminating any rivals that can threaten their fry. These beautiful Burkinabe beasts can be ruthless!

Luckily the remaining baby whale and the Debawi cats are nocturnal and capable of evading the Jewels' wrath. They hide among the plants during the day, and forage for food at night when the *Hemichromis* are hunkered down in one corner, trying to sleep.

I made some regrettable mistakes with these fish from Burkina Faso, but also learned a lot and enjoyed some of the drama. If anyone wants Jewel fish fry, please let me know. There isn't room for 40 of such fish to grow up in my basement tank.

God bless you, and your fish.

References

Fishbase.org

Oueda, Adama. Zooplancton et Ecologie Alimentaire des Poissons des Lacs Artificiels de Bagre and de Loumbila (Burkina Faso). Doctoral thesis, University of Ouagadougou, 2009.

Mike Hellweg, personal communication.

Club Hopping 2010

Steve Edie

July 22-25 – Milwaukee: American Cichlid Association – Annual Convention

Aug 8 - St Louis: Missouri Aquarium Society - Auction

Sep 3-5 – Peoria: Tri-County Tropical Fish Society – Annual Show

Sept 17-19 - Iowa: Midwest Cichlid Association – Annual Convention

Oct 3 - St Louis: Missouri Aquarium Society – Swap Meet

Oct 14-19 – Ash Meadows, NV – North American Native Fishes Association – Annual Convention

Oct 16 – East Peoria: Tri-County Tropical Fish Society - Auction

Oct 21-24 – Baltimore: All Aquarium Catfish Convention

Nov 14 - St Louis: Missouri Aquarium Society - Auction

Nov 19-21 – Cleveland: Ohio Cichlid Association – Extravaganza

Jan 14, 2011 – Urbana, IL: Champaign Area Fish Exchange - Auction

July 14, 2011 - Urbana, IL: Champaign Area Fish Exchange - Auction

Note: The 2010 Chicago Cichlid Classic will not be held on Memorial Day Weekend this year. They will be helping with the ACA Convention.

BAP Report

Steve Edie

Member	Species	Common	Pts	Total
May 2010				
Mike Hellweg	Anomalochromis thomasi "Guinea"	Guinea Butterfly Cichlid	15	3699
Mike Hellweg	Cryptoheros nanoluteus @	Bumblebee Convict	20	3719
Mike Hellweg	Boraras sp. "South Thailand" *	Red Micros	25	3744
Mike Hellweg	Herichthys cyanoguttatus	Texas Cichlid	10	3754
Mike Hellweg	Julidochromis marlieri "Katoto" *	Banded Julie	15	3769
Mike Hellweg	Parosphromenus deissneri **@	Licorice Gourami	50	3819
Mike Hellweg	Amatitlania siquia	Honduran Red Point	10	3829
Mike Hellweg	Mikrogeophagus ramirezi	Blue Ram	15	3844
Mike Hellweg	Epiplatys chaperi schriberi	Schriber's Pike Killie	10	3854
Mike Hellweg	Gambusia geiseri "San Marcos" *	Largespring Gambusia	10	3864
Jerry Jost	Nannostomus beckfordi	Golden Pencilfish	20	785
Jerry Jost	Nothobranchius korthausae "Mafia Island" (TAN 0205) #@		15	800
Cory Koch	Haplochromis aeneocolor *@	Yellow Belly Albert	25	1302
Cory Koch	Xenotoca eiseni @	Red Tailed Goodeid	30	1332
Gary McIlvaine	Haplochromis sp. "Rock Kribensis"		10	1042
Gary McIlvaine	Poecilia reticulata ^	Jedi Cobra Guppy	1	1043
Tony McMillan	Poecilia reticulata ^	Half Black Guppy	1	84
Tony McMillan	Xenotoca eiseni @	Red Tailed Goodeid	30	114
John Stollhans	Poecilia reticulata	Black Guppy	5	60
Pat Tosie	Apistogramma resticulosa		15	3307
Pat Tosie	Gambusia affinis "Baja Mexico" *		10	3317
Pat Tosie	Pelvichromis pulcher "Lagos Nigeria" *		15	3332
Derek Walker	Corydoras paleatus	Peppered Cory	10	1104
Derek Walker	Goodea gracilis @		30	1134
Derek Walker	Haplochromis sp. "Blue Fire Fin" *		15	1149
Derek Walker	Skiffia francesae "Rio Teuchitlan" *@	Golden Skiffia	45	1194
Derek Walker	Pundamilia sp. "Blue Bar, Hippo Point" *@		25	1219
Derek Walker	Xystichromis sp. "Dayglow" *@		25	1244
Kurt Zahringer	Neolamprologus leleupi	Lemon Cichlid	10	70
Kurt Zahringer	Synodontis lucipinnis *	Dwarf Petricola	20	90

Jun 2010

Marlon Felman	Badis badis	Badis Badis	15	40
Marlon Felman	Heterandria formosa	Least Killifish	5	45
Charles Harrison	Badis ruber	Red Badis	15	2285
Charles Harrison	Girardinus metallicus	Black Chin Livebearer	5	2290
Charles Harrison	Limia caymanensis		5	2295
Mike Hellweg	Pelvicachromis taeniatus "Lokundje"		15	3879
Mike Hellweg	Pelvicachromis taeniatus "Moliwe"		15	3894
Mike Hellweg	Puntius bimaculatus	Red Line Barb	10	3904
Mike Hellweg	Synodontis lucipinnis		15	3919
Loni & Jim Hosler	Labidochromis caeruleus	Electric Yellow Lab	10	10
Cory Koch	Mogurnda mogurnda	Australian Spotted Gudgeon	15	1347
Pat Tosie	Hemichromis frempongi		20	3352
Pat Tosie	Poecilia wingei	Tiger Endler's	5	3357
Derek Walker	Ameca splendens "Rio Teuchitlan" *@	Butterfly Goodeid	35	1279
Derek Walker	Chapalichthys peraticus sp. "La Mintzita" *@	Spotted Goodeid	35	1314
Derek Walker	Poeciliopsis prolifica		5	1319

* = 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)

= Species previously submitted = 0 points, except for C.A.R.E.S. = base point bonus

^ = Species previously submitted, limited points for additional color varieties

Sources:

Cal Academy - <http://research.calacademy.org>

CARES - <http://www.carespreservation.com>

As you may have noticed, Mike Hellweg has been on a BAP binge lately, even resorting to breeding (gasp) Cichlids! He says it's for some contest, but I think he's just showing off.

Exchange Note:

The July Fin Flap of the Eastern Iowa Aquarium Association reprinted "A Rough Ride with a Tiny Horse *Hippocampus zosterae*, the Dwarf Seahorse" by Mike Hellweg and Spawning *Aspidoras eurycephalus* by Rick Tinklenberg

HAP Report March April 2010

Mike Hellweg

Member	Species	Common	Rep	Pts	Total
Andy Walker	Ceratophyllum demersum	Hornwort	V	5	425
Andy Walker	Hygrophila corymbosa Kompacta	Kompact Hygro	V	5	430
Andy Walker	Lilaeopsis mauritainia		V	10	440
Mike Hellweg	Bacopa australis*	Southern Bacopa	V	20	2900
Mike Hellweg	Chara fragilis	Fragile Stonewort	S	15	2915
Mike Hellweg	Fontinalis sp MO Moss*		V	5	2920
Mike Hellweg	Potamogeton nodosus	Floating Leaf Pondweed	S	10	2930
Mike Hellweg	Typha gracilis	Thin Dwarf Cattail	V	5	2935
Tony McMillan	Lemna valdiviana		V	5	355
Tony McMillan	Limnobium laevigatum	Brazilian Frogbit	V	5	360
Harold Walker	Cryptocoryne moehlmanni	Moehlmann's Crypt	V	15	1110
Harold Walker	Cryptocoryne parva		V	15	1125
Harold Walker	Cryptocoryne pontederiifolia		V	15	1140
Harold Walker	Cryptocoryne pygmaea	Pygmy Crypt	V	15	1155
Harold Walker	Elatine orientalis*	Japanese Waterwort	V	15	1170
Kathy & Marc Daly	Colocasia esculenta illustris	Imperial Taro	V	15	300
Pat Tosie	Micranthemum micranthemoides	Baby Tears	V	15	270
Ryan Bush	Echinodorus amazonicus	Amazon Sword	V	15	70
Ryan Bush	Hemianthus micranthemoides	Baby's Tears	V	15	85
Ryan Bush	Riccia fluitans	Crystalwort	V	10	959

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

* = MASI First



MASI Logo merchandise is now available from Café Press. Thanks to Bart Kraeger for creating the site and Michelle Berhorst for creating a high-resolution digital version of the logo, you can now purchase logo merchandise on-line. Pick from T-shirts, jerseys, caps, tote bags, coffee cups, and more.

Go to www.cafepress.com/MOAQS to view and order the merchandise.

FISHES as DISHES

Patrick A. Tosie, Sr.

We all love our fish! This column will be dedicated to using our fish for something tasty to enjoy. Try it, you may like it. If you have leftovers, bring it to a monthly meeting for others to enjoy.

Tilapia Fish Tacos with Arugula

Ingredients

Wonton cups: 12 (3 1/4 by 3 1/4-inch square) wonton wrappers*
1/4 cup canola or vegetable oil

Filling: 3 tablespoons olive oil, plus more for drizzling
3 tilapia fillets (about 8 ounces total), cut into 3/4-inch pieces
Kosher salt and freshly ground black pepper
1 avocado, halved, pitted and flesh cut into 1/2-inch cubes
1 mango, peeled and flesh cut into 1/2-inch cubes
3 green onions, finely chopped
3 cups coarsely chopped baby arugula

Dressing: 3 tablespoons olive oil
2 tablespoons fresh lime juice (from about 2 limes)
Kosher salt

Creme fraiche: 1/2 cup creme fraiche
1 tablespoon wasabi powder (Can be found in Asian markets)
1/4 teaspoon kosher salt

Directions: (Special equipment: a 12-count nonstick muffin pan)

For the wonton cups: Put an oven rack in the center of the oven. Preheat the oven to 375 degrees F.

Using a pastry brush, brush each side of the wonton wrappers with canola oil. Gently press the wonton wrappers into the bottom and sides of a 12-count muffin pan. Bake until lightly golden, about 6 minutes. Remove the pan from the oven and let cool for 5 minutes. Gently lift the wonton cups out of the pan and cool completely, about 10 minutes.

For the filling: In a large, nonstick skillet, heat 3 tablespoons olive oil over medium-high heat. Drizzle the tilapia fillets with olive oil and season with salt and pepper, to taste. Arrange the fish in a single layer in the pan and cook until the flesh is flaky and cooked through, about 2 to 3 minutes on each side. Set aside to cool slightly.

For the dressing: In a medium bowl, whisk together the 3 tablespoons of olive oil and the lime juice. Season with salt, to taste. Add the avocado, mango, green onions, and arugula. Toss until all the ingredients are coated.

For the creme fraiche: In a small bowl, mix together the creme fraiche, wasabi powder and salt until smooth.

To assemble the tacos: Put the wonton cups on a platter and divide the avocado mixture into the cups. Top each with 3 to 4 pieces of fish. Spoon about 1 to 2 teaspoons of the creme fraiche mixture on top of the fish and serve. (Note: The wonton wrappers can burn very quickly in the oven so check them after 5 minutes.)

Kat's Fish and Oddballs

By Kathy Deutsch

Full disclosure: I love fish and this column will be about fish I like and am interested in. Since I am never sure if the Latin name is correct or not, I am giving up on that. I'm using the common name for these mostly common fish.

The Farlowella (twig cat) is a most graceful tank companion. It hangs vertically by its sucker mouth near the filter or the heater. Maybe it rests on a piece of driftwood, or wiggles through the water to get to a quiet place. It moves with no wasted motion, attracting no attention.

The two I have in a 45 gallon bowfront have been around since perhaps 2001. They are 7-8 inches and spend their days grazing algae off the tank walls. Every spring they seem to do various mating dances, including twining around each other and chasing. Sadly, a school of pygmy corydoras follows right behind, so I suspect any eggs are eaten.

I had bad luck with twig cats in the past, so just keeping these fish is all I wanted. A spawn would be great, but they are happy in this community tank. They know enough to cling to the front glass most evenings, to see if I am coming with food. They are intriguing to watch.

CARE INFO

Farlowella (twig catfish)

temperatures: low 70's F

good filtration with some water movement

pH probably 7

They like water changes-poor water quality will kill them fast.

They need more room than you would think-sharing a 45 gallon bowfront with 8 pygmy corydoras and 2 midwater pencilfish-types.

They like plants (live and plastic) and wood- a bare tank would stress them.

They can get caught in hair algae and java moss, so keep an eye on that.

Like most other catfish, they use wood for digestion (fiber). A nice piece of driftwood is appreciated.

They love to clean algae off things-a clay flower pot allowed to get green is a feast for them.

Their mouth is downturned and scrapes. Tableted foods are taken, and they will slurp up small flakes and food crumbs. I put a piece of something green (attached to a lead weight) in their tank daily. I have never seen them eat the zucchini/lettuce/kale, but there are toothmarks on it after a day or so.

Editor Notes

It's a pretty full Darter this time, so you don't need to put up with much from me. I have used up the article backlog, so it is time to think about what you want to write next – deadlines are August 15 for September/October and October 15 for November/December.

Keeping & Spawning *Phalichthys amates amates*

By Wayne Toven

Reprinted from the Oct Nov 2009 Tank Topics of the Greater Akron Aquarium Society

Livebearers again? That's right another article on livebearers, I write about what has been spawning lately in my fish room. *Phalichthys amates* is a species of livebearer belonging to the family Poeciliidae. It is currently divided into two sub-species, *P. amates amates* and *P. amates pitteri*. The range of distribution of *P. amates amates* is the Atlantic slope of southern Guatemala and northern Honduras, and *P. amates pitteri* is the Atlantic slope of Costa Rica, Nicaragua, and western Panama. Since I have not kept *P. amates pitteri*, I will concentrate on *P. amates amates*, which until recently resided in a 20 gal high aquarium in my basement fish room.

The common name for them is the merry widow; they are a peaceful species that prefers quiet conditions, so turbulence and active tank mates should be avoided. Their aquarium should be well planted, from what I have observed they are very shy fish. Water conditions are not too critical, medium to medium hard, Ph range should be 6.5 – 7.5, and temperatures 72 – 82 degrees F. *P. amates* are omnivorous and herbivorous, all foods seem to be eaten readily, I fed vegetable based flake, live daphnia and black worms, freeze dried daphnia and blood worms, and frozen brine shrimp and blood worms.

The body shape is most similar to that of platys, adult males grow to 1 ½ inches and the females around 2 ½ inches, the main difference other than the size is that the males have a good sized gonopodium. The main body coloration of both sexes is a light golden tan, with a bluish iridescence on the middle of their sides. Dorsal and caudal fins are transparent with the same light golden tan colors as the body, the rest of the fins are clear. The dorsal fin of both sexes has a band of black with a narrow white margin on the trailing edge. Females have a dark spot above and just in front of the anal fin; this is referred to as the gravid spot. Both sexes also have a short dark stripe through the eye. Looking down on them from above, there is also a dark stripe from the front of the dorsal fin forward to between the eyes, and a small white spot in that stripe just behind the eyes.

For the purpose of breeding the aquarium should be very thick with plants if any fry are to survive with the parents and other adults present. Otherwise a gravid female should be placed in a breeder trap so that the fry can escape to safety. Although they are a peaceful fish, I've noted they consider their fry a live food. When I first noticed the fry they were ¼ of an inch in length and slender, so even with the small mouths of the adults they could consume them. The gestation period is four weeks, a typical spawn is anywhere from 10 – 80 fry. The males are sexually mature at a mere six months of age, the females take about twelve months. My spawns were never really big considering my females were only about 1 ¾ inches in size, and by the time I noticed there were fry, as they were all in the same aquarium. As with a lot of my fish, after successfully spawning them, the spawning group was moved on through a club auction, so that others can have the joy of keeping and spawning them.

References:

Baensch Aquarium Atlas #1, by Dr. Rudiger Riehl, Hans A. Baensch
Livebearing Fishes-a Guide to Their Aquarium Biology & Classification,
by John Dawes

Top Ten Reasons I Like Fish Auctions

By Bruce Hart

Reprinted from the February 2010 Aqua Antics of the Sarnia Aquarium Society

1. I have the chance to purchase some fish, from a fellow aquarist, that I may never have seen before. Maybe I am familiar with the fish, but have never seen them in a retail outlet.
2. At an auction I can sell off many of the fry of some species I have had some success at breeding. It is not a good idea to take too many of the same kind of fish to an auction, as it results in flooding the market and getting less of a return. If you have a lot of one type of fish, you should plan on attending more than one auction.
3. Sometimes, after breeding a fish species, I am prepared to part with the adults, so a fish auction can serve as an outlet for this. Often the pet stores are not interested in large adult fish, as they may not the room for them.
4. Going to an auction sponsored by another Aquarium Club, usually means going out of town. This provides an opportunity to meet new friends in the hobby, and meet up with old friends from out of town that you don't get to visit with very often.
5. Often at an auction you can purchase a good used piece of equipment: like a tank, filter, lid with a light, or piece of driftwood. You might find a homemade tank, or odd shaped size tank that will fit perfectly in the one space you have left on the top shelf in your fish room.
6. Some clubs get donations of new supplies from retailers and wholesale suppliers, so at the auction you can bid on them for purchase, or perhaps win something in a raffle. Imagine coming home with a complete new 50 gallon aquarium kit with all the necessary peripherals.
7. At an out of town fish auction, you can see what different trends there might be coming along in the hobby. At my last few auction visits I have seen how popular cherry shrimp are becoming in the hobby, along with spixi snails, and various kinds of plecos with long fins, different colourations, and various Lnumbers.
8. I can not forget to mention the live water plants that are always available at auctions. Other hobbyists can separate off shoots or cuttings of their plants for new homes in other aquariums. Plants are much easier to pack up in bags and transport. They don't punch holes causing leaks in bags like fish do; they don't actually need much water at all to stay moist in their temporary environment.
9. Sometimes I am looking for an adult fish as a mate to one I already possess. If you look in a pet store you are likely only to find young immature specimens. I had a pair of snakeskin gouramies for over a year, until the female became aggressive towards the male and killed him. Now I am looking for a replacement mate.
10. What about the prospect of making some money on the fish and supplies you are selling. This is always helpful for the pocket book, and a way to justify to your spouse the purchases you just had to make that day, and all the money you saved with your bargain hunting expertise.

The Computer Page

Steve Deutsch

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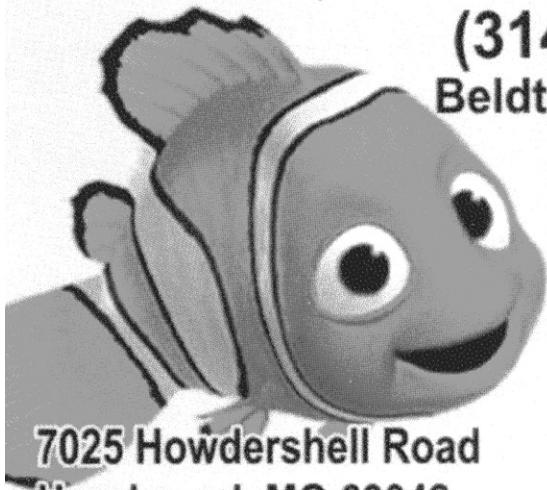
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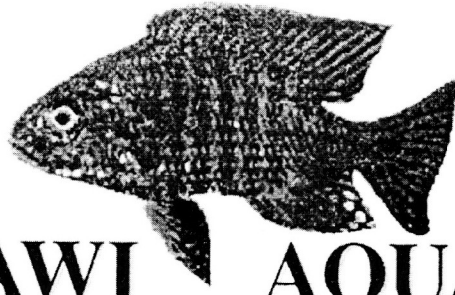
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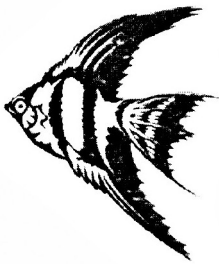
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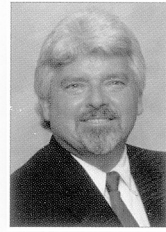
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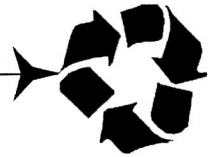
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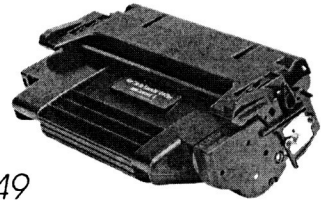
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