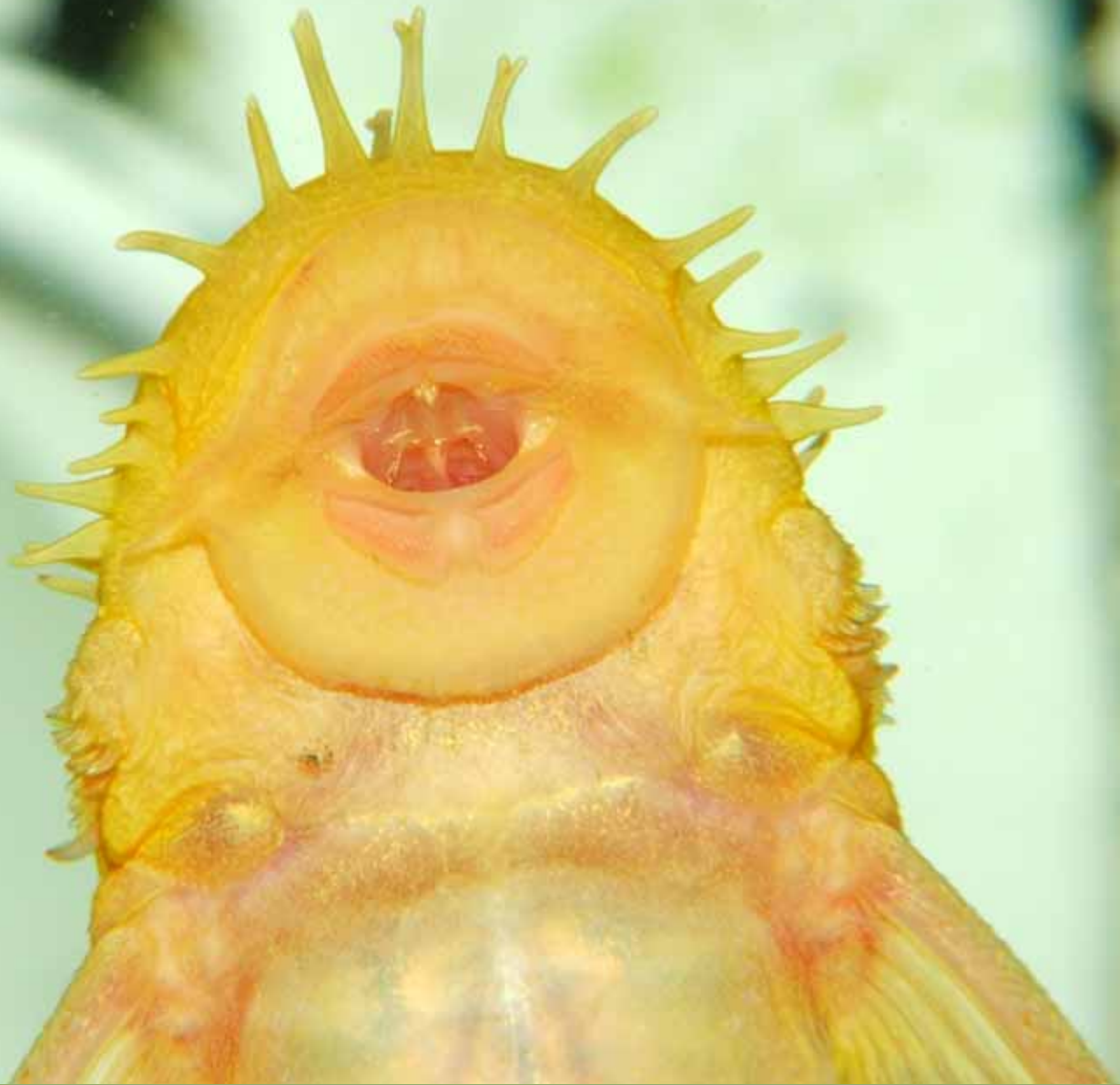


UnderWater



The Official Newsletter of the Iowa Aquaria Association

June 2005 | V2:N6



COVER: Albino Bristlenose Pleco | by Bill Brown (Manus)

INSIDE: Live Foods: Earthworms | Specis Profile: Pundamilia and Archocentrus



UnderWater

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UnderWater Welcome

I recently attended the Greater Chicago Cichlid Association (GCCA) Classic. One evening we enjoyed the company of several of our friends at a late night dinner. One of our friends was Rick Borstein, the GCCA's webmaster. Their site is a wonderful tool with lots of information, a calendar of events and a classifieds section. I asked Rick if they had ever considered a forum on their site. He said, "No way, can you imagine trying to moderate a group like this?" I had to laugh.

The GCCA has been around since 1974 and boasts over 200 members. They have hosted the ACA (American Cichlid Association) convention several times and will do so again

in 2006. The Classic is a 3-day event that attracts respected names in the hobby from all over the world. This club has done a lot of things right but they wouldn't dare attempt a forum on their web-site. Who would? IAA.

Recently there have been several threads on our forum about how nice it is to visit there and how helpful and courteous members are to each other. I couldn't agree more. Old know-it-alls and "newbies" alike can post without fear of being insulted. This is not an accident. A while

back, the BOD drafted and adopted a code of ethics for moderators. It was agreed on then that it was not the scope of the moderators to solve disputes but simply to keep the forum friendly. This is not easy.

How can the IAA dare to accept such a task? People. Good people. It has been the diligent duty of the IAA officers to reflect the views of the majority of the members and apparently, the majority of them are good. They are still here. I am proud to be a part of this group.



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UnderWater Photography Contest



Joe Lover (loverland)

Ps. Zebra "Long Pelvic Ngara"
Honorable Mention



Bill Brown (Manus)

Altolamprogus Compressiseps
Honorable Mention



Joe Lover (loverland)

Metriaclima Estherae
Honorable Mention



Jeff Shelton (Jeff)
Brain Coral

1st
PLACE

This month's contest was guest-judged by Scott Walker, a professional photographer in the Twin Cities. Jeff will receive a first-place certificate at the next official IAA meeting. Congratulations!

Live Foods: Earthworms

Summer is just around the corner and I've got a real bad case of Spring fever. It seems to get worse every year. This is the time of the year when cheap fish food becomes available. What I mean by "cheap" is free food. All you have to provide is time and the containers. Grasshoppers, crickets, and earthworms are starting to show up in the yards, parks, and fields.

How many of you want a fish food that is good for your fish? I mean one that is natural, high in protein and has very low maintenance. Earthworms fit that bill. They are not on the list of foods that fish eat naturally but they eat them anyway. I started my cultures over a year ago when curiosity took hold along with the expense of keeping my larger cichlids and catfish fed properly. I had read several articles on keeping earthworms as fish food. Some people had no luck at all and others had complete success. The people who didn't have success didn't seem to give it enough time before harvesting. Others only used one culture or an improper medium.

Earthworms have been farmed for generations just for the fish bait and garden stores. You can go to the library and pick out several books on worm

farming and cut it down to suit your needs. If you can, set one up outside. I don't have that option. For me to set up a worm bed for my fish would be like asking for self-torture. So, a way to set-up an indoor worm culture was my only option. I first went out to a nearby park after a rainstorm collecting some night crawlers just to make sure that my fish would eat this new food. I knew they would, but why go through all of the work if they were going to refuse them? Well, I am sorry to say not a worm survived and some of my fish went on a hunger strike for a few days. Now I've spoiled them.

The easiest way to get started is to buy your worms from a farm. You can get a thousand for less than \$20.00. That includes shipping and they come to your front door. Mine came from a farm in Bronwood, GA. The cost was \$16.00 for the first thousand. That's under one cent apiece! How's that for cheap? If you buy bigger lots it gets even cheaper. Where do you find this place? Look in the back of Outdoor Life magazine for the ads under live bait. You will have many choices. I chose critters called "Red Wigglers". These are small, About 3"-4" in length and less than the

diameter of a pencil around. Perfect for my needs. They showed up at my door in a little plain brown box with bright hot pink lettering that said "LIVE EARTH-WORMS!". Just joking about the color, but it's amazing how the word "Live" can be read by family members even when they're in another room. I was asked what on earth I was going to do with them. "Fish food" was the answer and everybody rolled their eyes. They think I'm nuts.

To get started you need the following:
2 - Plastic sweater boxes (12" x 8" x 5" - larger if room allows)
1 - 8lb. bag Sterile peat moss, no fertilizers
1 - 8lb. bag Sterile Canadian sphagnum moss/peat moss mix, no fertilizers
1 - Starter culture of worms
Water

Now the fun begins! Just kidding; this is real easy. Mix the two kinds of peat



moss at a 50/50 ratio in the sweater box. I use the Canadian moss because it helps hold moisture longer without getting packed down too much. This helps when it comes time to feed the worms. After it is mixed (it doesn't have to be perfect, the worms will do the rest) add some water, just enough to make the soil damp. The best way to check this is to grab some soil in you hand and if you can squeeze a drop of water out of it, it's just about right to get started. In time you will know just how damp, not moist, to keep your cultures. Make some holes in the lid about the size of a pencil. Don't make too many at first, only about 6 - 8. These are to control humidity. You will probably have to make some more later on

Live Foods: Earthworms

depending on how tight the lid fits. For example, I have one box with 14 holes and another with 23. This also comes into play if you stack your cultures. I chose not to. Split your culture up between the two boxes. You can use the medium that they were shipped in also. It won't hurt anything.

Feeding is easy. Use oatmeal, corn meal, instant potatoes, old bread and mashed potatoes. Any of the above dry foods can be sprinkled on top of the medium with a little water. I like to make a hole in the middle of the culture and bury the food.

This keeps the medium from getting compacted. If you use leftover mashed potatoes or pasta, make sure it is free of any butter, margarine, or oil. Gravy is optional (not really). The food should be in pure form with no condiments. Feed the culture only after the prior food is consumed. This will take 4 to 7 days depending on the size and density of the culture. It takes about 3 months for

the reproduction cycle to get into full swing. I know it will be hard but leave them alone except for feeding. Check on them from time to time and



you will start to find little ones. What I am going to do and will have started by the time you read this is to pull the breeders from the two main cultures to start a third. I won't mess with that one except to feed and add breeding stock. This will give me more of a culture base to work with.

When it comes time to feed my fish, I just dig some up, wash them off

and toss them into the tank I want to feed. For the smaller fish I'll take a worm by one end hold it over the tank and cut it up with a pair of scissors.

These are my scissors. A word of warning: don't use the scissors that are lying in the kitchen drawer. There IS HELL TO PAY if you are caught using them to cut up worms. This is from first hand experience. Go buy your own. It's much safer. Here's one last little bit of advice. I've had some small insects inhabit the surface of several different types of soil based worm cultures. I think these are

mites. I know this sounds bad but these little guys keep the surface of the medium clean and free from mold and fungus. This is a guess, but on a culture of white worms that didn't have these insects, mold, fungus and other crud got so out of control I had to throw it out. These mites are just there for the free meal. Keep the culture fed and they will keep it clean. They have never been a problem for me. I hope some of you will give this a try. I keep cultures under my bookstand in

my fish room out of sight. Now I have plenty of food for practically nothing. Give earthworms a try, if it doesn't work just throw them in the garden. It'll make up for the scissors incident. Have fun growing your live foods.

*by Dave Ball
President of the Southern
Colorado Aquarium Society
Aquarticles*

Juvenile Aulonocara: Is it male or female?

Lake Malawi haplochromine cichlids of the genus *Aulonocara* (aka "peacocks") rank amongst the most popular African cichlids. The vibrant coloration of the adult males coupled with a low to moderate level of aggression attract many hobbyists to this genus of cichlids. Interest and prices remain relatively high on these species despite the drab and similar coloration of adult females and juveniles. Determining the sex of juvenile peacocks is an oft asked question and thus the topic of this article.

There are several anatomical and coloration cues which may assist in determining the sex of a developing juvenile *Aulonocara*. Coloration and anatomical cues often begin to develop in juveniles between 2-3 inches in total length thus juveniles should at least be in this size range to begin examination for determination of sex. The most consistent early clue in nearly all species of *Aulonocara* is development of a white margin on the dorsal fin. This feature is present in males of most species and absent in all females. The development of this feature also often precedes development of any conspicuous coloration or pointing of the ends of the dorsal and anal fins thus often serving as the first consistent indication of a developing male.

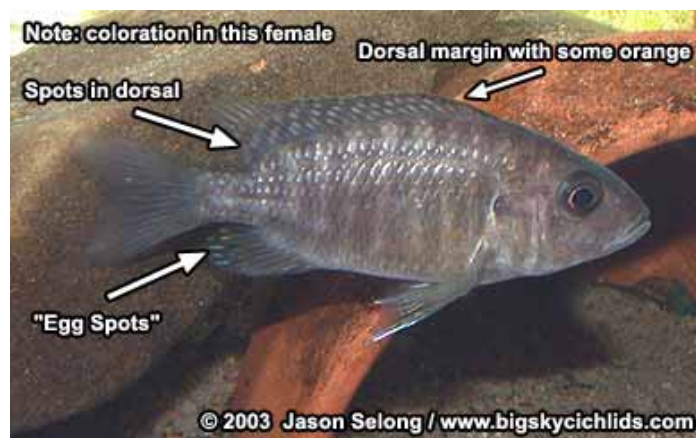
The second set of features



Juvenile male *Aulonocara baenschi* 50 mm (2 in) TL



Aul. jacobfreibergeri "mamelela" juvenile Male 60 mm TL



Aulonocara sp. "Iwanda" Female 75 mm TL

generally indicating a developing male are the pointing of posterior tips of the dorsal and anal

fin and the beginning of conspicuous coloration on the fins. The appearance of these features varies with

species and these features may be slow or fail to appear in the presence of another male (particularly males of the same or closely related species).

Further maturation often produces, depending upon species, other conspicuous features of pattern development sometimes including egg spots on the anal fin and the development of colored striations in the caudal (tail) fin and coloration of the body. One must be cautious interpreting these features however, especially the egg spots and spotting of the dorsal fin. The development of egg spots on the anal fin and spotting and light bands of coloration in the dorsal fin can be misleading as many adult females, such as the one pictured below, will also develop some of these features.

Male *Aulonocara* only begin development of coloration between 2-3 inches in length. Hobbyists would be advised to carefully scrutinize offerings of this size *Aulonocara* with full coloration, especially if all the specimens are colored as males. Certainly mature wild caught specimens can sometimes be smaller in size and display full coloration due to limited food resources in the natural environment, however domestic raised fish are not often subject to these food limitation and most lots should at least contain a few females at that size.

And the winner is...



When playing any game of chance you should be aware of the probability of a certain outcome. Most of us know that when flipping a two-sided coin our chances of calling it right are 50:50, 1/2, or 50%. What if we are tossing two coins? What is the probability of getting two heads? The answer is 25%, since we could have two heads, or two tails, or a head and a tail, or a tail and a head. Thus we have a 1 in 4 chance of getting it right.

These same rules of chance apply when trying to buy a pair of fish. Except for livebearers and dimorphic fish, it is often difficult to tell males from females, especially in the young. Most store employees can't help in sexing fish. I have been dealing with angelfish for a good number of years and I'll be damned if I can tell the sexes apart prior to them pairing off as adults. Most tetras, most danios, etc., are difficult to sex out. So buying a "pair" of fish is somewhat of a game of chance.

Most hobbyists will tell you to buy a batch of young ones and wait for them to mature and pair up on their own. That is usually what I do. Well what are the probabilities of getting a pair when buying more than two fish? The chart below predicts the chances of obtaining a pair when 2 or more fish are purchased. There is also an assumption that the tank from which you are drawing the fish contains equal numbers of males and females.

# of fish bought	Probability of at least 1 pair
2	50%
3	75%
4	88%
5	94%
6	97%

The formula is: $(1 - (1/2)^n) \times 100 = \%$ (where n is the number of fish)

Of course you can be as lucky as I was in purchasing 8 young Apistos and getting all males. What are those odds? Around 0.39%.

*by Bob Berdoulay
From Gravel Gossip, Diamond State Aquarium Society, Delaware City Aquarticles*

THE ADVENTURE

Super Pets

Our next adventure takes us to Super Pets located in Peoria, Illinois at 910 W Lake Avenue. The store is owned by Steve and Shelly Adams, and has been in operation for two years.

The ambiance reminded me of PetSmart, but lacked the franchise tag. The store was very large and was separated nicely into sections. As one enters the store, they'll notice a popcorn machine by the door. I didn't look into it, but am assuming it is free to customers.

The store carries just about everything. I noticed a small animal area, reptile area, a dog/cat area, and of course a fish area. Most sections had a very good selection of species, though I was told they generally don't carry cats. I was surprised to see dogs sold there as they require a lot of work maintaining. The reptile and small animal selection was pretty good, and all species were displayed nicely.

When entering the fish room, one will immediately notice a large acrylic aquarium that was partitioned. I was told that the tank was 650g on one side, and 200g on the other. It appeared to be about 8' X 4' X 2'. The aquarium had colder water species on one side, and warmer species on another. I noticed Koi, Goldfish, and an Albino Channel Catfish on one side and Cichlids on the other. I also noticed a foot long black shark which had jumped from the warmer side to the cold side.

Josh, the staff aquarist, told me "the store has over 6000 gallons of water not including prep and feeders." If I have my information right, they had 28 columns of fish tanks with 2 rows each. They filtered their tanks on a "column" basis with each having a wet/dry filter. I'm assuming the sumps housed heaters. It was interesting as they had partitions in most of their tanks; sometimes one, and sometimes two. These partitions allowed the store to house many different species of fishes.

Twenty of these columns were freshwater, and 8 columns were saltwater. Additional freshwater set-ups were a 55g plant tank, 2 "approximately 20g" tanks for snails, and the large display aquarium. Additional salt-



cont. on page 9

THE ADVENTURE

water set-ups included a reef tank set-up (75g perhaps), a live rock tank (approximately 5' X 5' X 2'), and a display tank with a Lionfish (75g-100g). In the back, which I did not observe, were other tanks not included in the 6000+ gallons.

Josh told me they were going to black gravel for all of the freshwater tanks. When I was there, they were dominated with natural rock. The saltwater tanks were dominated with crushed coral.

All the tanks were nicely illuminated and relatively clean. The outside of the tanks had some water spots, but that is to be expected at a pet store. The fish seemed to be adequately fed and in good health.

I thought the store had an excellent variety of community freshwater fish – possibly the best I've seen. They had many livebearers, and many tetras and barbs. They had a moderate selection of cichlids and catfishes from what I remember. They seemed to have an excellent selection of saltwater fishes. They had many nice looking specimens, and some that I seldom see. All specimens, both salt and fresh, seemed to be nicely priced. I noticed some specials: ie. Green Terrors \$2.45 ea., Serpae Tetra \$.99 ea., and a Chevron Tang \$79.95 ea. I don't remember the exact details of the fish guarantee, but want to say it was around 2 weeks!!

I looked at some of the pricing of dry goods, and they seemed nicely priced. I don't know if they compare to superstores, but they certainly seemed to offer competitive prices. Two specific examples I took were an Aquaclear 110 filter with a \$59.95 price tag, and an All Glass 75E aquarium for \$139.95.

I would highly recommend this store to any fish hobbyist, but specifically to those interested in saltwater fish-keeping or community freshwater. One other interesting thing to note was talk of acquiring the adjacent property; and if that happens, it sounded like there would be an expansion on the fishroom. So, get ready for a roadtrip and visit Super Pets today. For more information, please call (309) 681-0000.



Pundamilia pundamilia

Formerly known as the Zebra nyererei, *Pundamilia pundamilia* hails from numerous locations in Lake Victoria. Most known locale variants are restricted to the southern portion of Lake Victoria – Mwanza Gulf specifically. Most *Pundamilia pundamilia* variants display little differentiation in regards to coloration and morphology. The *Pundamilia pundamilia* species we have in the hobby are believed to be a Makobe Island variant. There is a *Pundamilia pundamilia*-like cichlid found in the northeastern region of Lake Victoria, but it is unknown at this time if this is a *Pundamilia* variant or a similar species that may have evolved in a parallel manner.

Pundamilia pundamilia was used in interesting laboratory experiments in conjunction with *Pundamilia nyererei*. This series of experiments was meant to test the theory that haplochromine cichlids rely primarily on sight recognition involving mate selection.

Male *Pundamilia pundamilia* can vary greatly in terms of coloration dependant on mood. As with most haplochromine cichlids, the advent of mating brings out a male's most vibrant dress. Body coloration is generally black on the underbelly running into 4-8 vertical stripes.



Pundamilia pundamilia male (left) and female (right).

Striping is seen on the females of the species as well and differ very little from *Pundamilia nyererei*. The body itself can be jet black to grey. This color pattern is where the fish obtained the "zebra nyererei" moniker. The dorsal fin exhibits a bright blue coloration in the anterior merging to brilliant red towards the rear. A red edging runs the length of the dorsal. The caudal fin is red as well. The anal fin of *Pundamilia pundamilia* can be red to orange with many intermediate variations. Numerous oculi adorn the anal fin. An incaved cranial slope merges to a pointed snout. Unicuspid teeth in the outer row in this insectivore's mouth aid in feeding on may flies and other small animals. The ideal habitat for *Punda-*

milia pundamilia is a steep slope near shore with large boulders making up deep crevices.

In captivity, *Pundamilia pundamilia* can obtain a length in excess of 10cm and can be aggressive towards its own as well as other species. An aquarium of 55 gallon will house a colony of *Pundamilia pundamilia* nicely. Large rounded river rocks on a small grain gravel substrate should make this beautiful cichlid quite comfortable. Suitable tank mates can include various *Synodontis* species, some of the smaller mbuna such as *Pseudotropheus flavus* or *Pseudotropheus demasoni*. They will mix well with most of the *Auloncara* species as well. We have maintained our

colonies with *Astatotilapia latifasciata*, *Lipochromis* sp. "matumbi hunter", *Ptyochromis* salmon and others. So long as there are members of both sexes in the colony, hybridization is not a huge worry. For obvious reasons, one should probably avoid the other *Pundamilia* species as well as some of the darker colored Victorians such as *Haplochromis* sp. "blue back". All *Pundamilia* are undemanding in regards to food requirement and will accept most foods readily. A good quality flake coupled with occasional treats of brine shrimp will bring *Pundamilia pundamilia* into condition quickly.

Spawning occurs in the typical haplochromine manner with the male displaying to a ripe female

Orbital

Welcome to my fishroom. It is far from what I want as a long-term fishroom. It has made due for the time being and as you can see by the grow outs, it's simple yet effective. My new and improved fishroom once I get moved will be a lot nicer with a rack(s) type layout and hopefully quite a bit more grow out tanks. The current setup is at a rental property, and I couldn't get too creative being that I would be moving soon enough.

I maintain a 75, 50, 30, 29, three 20s, and three 10 gallon tanks at this time. I also have a 55 gallon yellow lab/Malawi hap setup that I maintain at my grandparents' basement.

My grandma was one of the first to get me a fish tank back when I was young. She started me out with some fancy guppies. She gets a kick out of them, and it gives me a excuse to stop by every week or week and a half.

My setups are fairly basic – most having hang-on-back (HOB) filters (Aquaclear & Marineland) and sponge filters (ATI & Jungle). I use two canister filters on my 75 though. Sponges are driven by Aquaclear powerheads and your basic diaphragm air pumps at this time. I aquascape my tanks with quite a bit of rockwork, and I use crushed coral for substrates. Although, I do like the sand mixed lightly with some crushed coral setup in the 75. I don't have a fancy fill/drain system. I just do the old fashion bucket method, which doesn't bug me. As for the types of fish I keep, I am an mbuna guy at heart. I also have been growing fond of the various Malawi haps and Synodontis catfish.

For a diet I feed my smaller fry and juvies freshly hatched brine shrimp and crushed up flake. The adults eat New Life Spectrum cichlid formula, HBH Graze, TetraCichlid flake, and various other grow out flakes I try out. I plan to try out some new types of flake/pellets in the future.

Growout method: I start newly stripped fry out in either plastic "floater" type containers or the nylon netted



Pseudotropheus sp. perspicax "Ndumbi"



Growout tank



Pseudotropheus elongatus "Jewel Spot"

orbital

boxes with a small amount of java moss in the bottom for the fry to hide in. They spend a few weeks in there, until they are eating and active enough to join the main 10 gallon. Which usually has other fry up to 1". Around 1.5" I move the fry to a larger growout, usually a 20 gallon.

- by Chad Lopez (orbital)



Top: Labidochromis Caeruleus; Middle Mixed mbuna tank; Bottom left: Otopharynx lithobates; Bottom right: Pseudotropheus acei.

Species Profile: *Pundamilia pundamilia*, cont. from page 10

in a series of shimmies. The male will try to lure the female into his selected spawning area all the while defending the spot against all who make the mistake of venturing near. After numerous dry runs, the male and female circle one another. The female drops an egg or two and quickly turns to pick them up. The male, slanted at an angle, displays his anal fin against the substrate. This

seems to entice the female into thinking the males' eyes are her own eggs. When she mouths at them, attempting to pick them into her mouth, the male releases his milt. When the female has released all her eggs she will try to find a secluded spot to recover and avoid the males' unending advances. The larvae will become free swimming and be released from the mother's buccal

cavity on or around day 18. The fry are easily reared on crushed flake and Cyclop-eeze. Spawns can yield between 15 and 40 fry. The young grow to sexual maturity in 10 months. *Pundamilia pundamilia*, like many other Victorian haplochromines, are more avid producers when young.

Pundamilia pundamilia are not always the easiest fish

to locate, but if you are interested in a beautiful undemanding species to adorn your tank, this jewel might be just what you are looking for.

Profile and photo by Greg Steeves of the Hill County Cichlid Club. The IAA maintains an article share with the HCCC.

2005 IAA BREEDER AWARD PROGRAM (BAP) STANDINGS

STANDINGS

Name	'05 BAP Points
1. Jo Meade	70
2. Bob Randall	60
3. Bill Brown	50
4. Matt Anderson	30
5. Scott Carlson	20
6. James Kutscher	10

LAST MEETING'S BAP'D FISH

Name	Fish Bap'd	(Category/points)
Bill Brown	<i>Aulonocara jacobfreibergi</i> "lemon jake"	(B/10)
Bill Brown	<i>Cynotilapia afra</i> "Nkata Bay"	(B/10)
Bill Brown	<i>Ancistrus</i> "bushy pleco"	(B/10)
Jo Meade	<i>Metriaclicha</i> "east reef zebra"	(B/10)
Jo Meade	<i>Pundamilia</i> crimson tide	(B/10)
Jo Meade	<i>Julidochromis marleri</i>	(B/10)
Jo Meade	<i>Neolamprologus leleupi</i> "firecracker"	(B/10)
Jo Meade	<i>Labidochromis caeruleus</i>	(B/10)
Jo Meade	Swordtails	(A/5)
Jo Meade	Neon green platty	(A/5)
Jo Meade	Mollies	(A/5)
Jo Meade	Guppies	(A/5)
Bob Randall	<i>Xystichromis phytophagus</i> "christmas fulu"	(B/10)
Bob Randall	<i>Dimidiochromis compressiceps</i>	(B/10)
Bob Randall	<i>Paratilapia polleni</i>	(B/10)

IT'S NEVER TOO LATE TO START

BAPPING!

/ CALENDAR OF EVENTS /

DATE	TIME	EVENT	LOCATION
June 2	7:30 PM	MAS Meeting	St. Christopher's Episcopal Church, Roseville, MN
June 7	7:00 PM	EIAA Meeting	Kenwood Park Presbyterian Church, NE Cedar Rapids, IA
June 12	7:00 PM	GCCA Meeting	Holiday Inn, Rolling Meadows, IL
July 21-24	Varies	ACA 2005 Convention	Radisson Plaza Hotel, Fort Worth, TX
Aug. 4	7:30 PM	MAS Meeting	St. Christopher's Episcopal Church, Roseville, MN
Aug. 13	10:00 AM	IAA Swap/Meeting	Best Western Des Moines North