

# The Lateral Line

Volume 2, Issue 21

April 2007



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April 17, 2007

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Cover Photo:  
*Tropheus* sp. "Black"  
 By Donald Davis

## BAP Report

March brought a lot of rain to our state and along with it some "firsts". This month became the rainiest March on record. Of course there were several other first for March.

Congratulations to Christy (Texastang) on her entry of *Cryptoheros* sp "cutteri". This was also a 1st of species entry for the club. Congrats on the entry and you moving closer to the next level.

Kenneth (Shelload) gets a big congratulation on his species entry of the *Paratheraps Bifasciatus*. This was a 1st of species entry and also a first entry for Kenneth into the BAP. Congrats Kenneth on both "firsts".

I was lucky to get a 1st of species spawn from a pair of FO *Melanochromis parallelus*. Because of the interesting facts on color changes, breeding and "cleaning stations", they are a very interesting fish. I also had another entry with the spawning of *Pseudotropheus acei* Ngara "Whitetail". A good looking fish and the female take very good care of their fry.

Greg (Mokkers) earns congratulations on his entry of *Aulonocara maylandi*. Not a first, but was his "5th" entry for this year and puts him in early contention for Breeder of the Year. Congrats Greg and I hope you can sustain the lead but there still a ways to go.

Congrats to all the entries this month and don't forget to take advantage of the prices on the BAP fry if you are a member. And if not this may give you one incentive to join before paying more at the next auction on the same fish.

■ *Jim Beck*

Current BAP Standings	
Name	YTD
Greg W.	85
Jim	70
Dave H.	50
Diane	35
Christy	35
Paul	30

Current Standings (cont)	
Name	YTD
Kenneth	25
Eric	25
Greg S.	20
Lisa Bl.	20
Duc	20
Nick	5

## HCCC Monthly Photo Contest



**First Place**  
Dave Hansen  
Male *Pungu maclareni*

**Second Place**  
Diane Tennison  
*Aulonocara Maleri*



**Third Place**  
Scott Richarte  
Eureka

**Species Profile:*****Melanochromis parallelus***

The *Melanochromis parallelus* when first discovered was confused with the *Melanochromis Auratus* and is still referred to as the "White Auratus". Later on when it was classified as the *parallelus* it carried a trade name of "Parallel Striped Mbuna".

The *Melanochromis parallelus* name, as you may have guessed, reflects the parallel lines that occur in both the male and the female. Both the male and female have elongated bodies and the parallel stripes running horizontally make these fish look even longer and sleeker. The female's body is very white with black stripes which make her appearance very striking. The male species body is mainly black with white or lighter colored stripes. But what makes the male species interesting is the color change that occurs as he matures. He starts out looking like the female, a white body with darker blue stripes. But as he ages, the body becomes blue-black and the stripes turn white or pale blue.

I was very lucky to observe this color change which is still taking place. I purchased these fish on June 22, 2006 as wild caught *Melanochromis parallelus* Manda. The males of the species are larger than the females and their



Photo by Jim Beck

sizes range from 10.0 cm to 13.0 cm (3.9 to 5.1 inches). The male's mature coloring develops at 2" (5 cm). The colors may vary, depending on the fish's geographical location. My male is approximately 4 inches and the female is 3.5 inches. My male's body is becoming darker and the black lines have lightened and the fins are very striking, black, with a white trim.

Though first reported of being located in Lake Malawi (Burgess and Axelrod

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(1976), its local is mainly in the northern part of Lake Malawi, in and around Likoma Island and Chizulmulu Islands. It is isolated in between Lutara Reef (Manda) and Mara point. (Ribbink et al. 1983: 205) These areas of habitat are mainly the rocky structure between 3 and 40 meters.

The *Melanochromis* diet consists mainly of plankton and algae. However it does consume invertebrates and other foods that may be stirred up. This places them in the category of Omnivores. It is reported that it also has been observed removing parasites and fungus from other non-Mbuna. This simple line does not express the true statement of fact which was noted by Ad Konings to whit:

*After the rainy season, which is an important breeding period for many species, several larger haplochromines have damaged fins or scales. These wounds are covered with fungus which prevents rapid healing. On several occasions I have observed adult females of M. par- allelus picking fungus from larger hap- lochromines. In all instances the wounded fish approached the "cleaner" and made clear, by*

*lying on its side or hovering in a slanting, head-up position, that it would like to have a "treatment". In all cases the dorsal fin was presented first. The female "Parallelus" then picked vigorously at the fungus and tore it off. Although it visibly hurt the "client" it re- mained in the typical position. When all its wounds were cleaned, which might take more than a minute; the larger haplochromine would resume its normal position and disap- pear.-Konings (1995c: 95-97)*

My tank is filtered by an Emperor 400, and I attempt a weekly water change of 20% to 40%. The recommended water temperature is 22.0 - 27.0 °C (71.6 - 80.6 °F) with a PH 7.5 - 8.9. And as with most Malawians, the fish feel right at home in our San Antonio water. My water temperature was maintained at 80 °F.

My pair occupies a 55 gallon tank with a colony of *Ps. demasoni*, a trio of *Ps. Tropheops* sp. "red cheek", and a group of *Labidochromis* sp. Mbamba and a pair of *Eretmodus cyanos- tictus* (Goby Cichlid). They have been housed together for approximately one year. They are fed once daily a spirulina based diet consisting of HBH Veggie Flakes or Dainichi Veg- gie pellets. On occasion a flake with a higher protein value is added to their diet. Even though they are Omnivores, I placed them in with these species of her- bivores because of their contrasting color and aggressiveness in the tank, this as worked out well so far.

The information I gathered show the fish to be aggressive not only to family mem-

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bers but to other species as well. The other tank mates, among themselves, are equally as aggressive and keep the tank very active. There had not been any damage or casualties until just recently. I moved the entire occupants to



Photo by Jim Beck

another 55 gallon. Within about 10 days, the female Goby was found dead. There was plenty of cover and space, but the male was relentless and apparently caught the female. The male *M. parallelus* is not the only one with aggressive tendencies as the female also displays this trait. I did not observe any serious aggression until later on after spawning had taken place.

As I previously stated I purchased this pair on June 22, 2006 from Dave's Rare Aquarium Fish. I did not observe the actual spawning courtship, because they prefer secluded areas, maybe a pit or under an overhang of rock. They are mouth brooders and the male has well defined anal pseudo-

ocelli (egg spots), but they do not play a part in the fertilization. The female mouths the males vent directly and fertilization occurs in her mouth. Six months later, December 15, 2006, the female was observed holding eggs.

Five days later it appeared she was still holding the eggs and she was relocated to a holding tank. She held the fry till January 7, 2007 for a total of 23 days. She was then fed for several days afterward and relocated back to her mate. This is the first time serious aggression was observed as he has chased her continually and forced her to hide amongst the rocks. Which I might add, she did successfully. There still is aggression but not as relentless.

The new fry were about ¼ inches in length and looked like small exact miniatures of the female, white bodies with black stripes. There appear to be a total of 14 - 16 fry, but the count may be off due to the fact they stay hidden in the rocks. They all appear healthy and at the present are doing fine. They

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are being fed a very fine powder of crushed HBH Veggie Flakes.

This pair, mostly the female, stands out in this community tank mainly because the Mbamba and *demasoni* all have dark bodies with darker vertical striping. The change in color of the male as he matures is very interesting and it is possible the female may undergo a color change when spawning takes place. Her color pattern may become muddy and blends together. I did not observe this change in my female during breeding, but this is a young pair and it may occur later on. This muddying effect may also become permanent as she matures. I personally hope the muddying effect will not turn out to be permanent because she stands out in a crowd.

Though I did not find this fish to be difficult to care for, if you do your homework, you won't either. Although I did not have any problems, I also kept only one pair with a tank full of other very active (aggressive) fish. The information

shows that if you keep more than one male of this species in a group that the chances are very high for one to receive damage or death. Also if you keep more than one female there may be conflict between the females who are equally aggressive, resulting in the same outcome as with the males. So as with many



Photo by Jim Beck

Mbuna, adequate tank space and many hiding places coupled with many "dither" fish appear to be the way to care for the *Melanochromis parallelus*, the "Striped Mbuna".

■ Jim Beck

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#### **References:**

Back to Nature Guide to Malawi Cichlids - Ad Konings

Burgess & Axelrod (1976)

Ribbink et al. (1983: 205)

**Product Review:****ClorAm-X**

This product review is based partly on information obtained from phone interviews with AquaScience Research Group, Inc., the manufacturer of ClorAm-X; Eco-Resources, the water utility management company for the Travis County WCID #10; and Reed Mariculture. Content from websites and manufacturer literature has been used in this article.

The manufacturer of this product is AquaScience Research Group, Inc. 1100 Gentry St., North Kansas City, MO 64116. [www.aquascienceresearch.com](http://www.aquascienceresearch.com). Additional information can be obtained at [www.cloramx.com](http://www.cloramx.com).

ClorAm-X is a concentrated dry powder water conditioner that detoxifies and removes ammonia, chlorine and chloramines in both fresh and salt water. Popular uses for ClorAm-X are:

- Detoxify ammonia, chlorine and chloramines for aquarium and pond fish culture.
- Increase transportation times for aquatic organisms such as fish, shrimp, shellfish and other invertebrates by reducing the concentration of free ammonia in the shipping container.
- Reduce stress and increase survival rates of aquatic organisms during shipment.
- Increase production rates in aquaculture by reducing the toxic effects of dissolved ammonia.

A short discussion on the interaction of ClorAm-X with other chemicals is appropriate. ClorAm-X should not be added to water containing active therapeutic dosages of dyes such as methylene blue, acriflavine or malachite green. ClorAm-X will interfere with their performance. ClorAm-X, in combination with these products will not result in toxic chemical by-products. ClorAm-X can be combined with antibiotics and anesthetics. In extreme cases of product overdose (in excess of 10 times the recommended dose), clorAm-X can cause pH drops that may be harmful to fish and other aquatic organisms. ClorAm-X is safe for biofilters.

Since there are some negative side effects of overdosing with ClorAm-X, I want to make sure I calculate and measure the correct dose. I was concerned about the dosage table on the package. The dosage table did not provide clear and concise instructions. The package label dosage chart states that one dose will treat for a concentration of 1.0 mg/L of ammonia for various volumes of water. As a Tropical Fish Enthusiast, I do weekly water changes and have great "Bio Filtration". My

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concern is not so much about ammonia but the ability to neutralize chloramine that is used in Austin to treat our water.

When this was discussed with the manufacturer, they stated that one "dose" of ClorAm-X will actually detoxify:

- 1.0 mg/L of ammonia
- 2.0 mg/L of chlorine, and
- 3.2 mg/L of chloramines

In order to discuss dosage, there are some terms that need to be defined.

- mg/L = milligrams per liter
- ppm = parts per million
- mg/L = ppm
- dosage = quantity of ClorAm-X (grams) needed to treat a measured volume of water (gal.) with a determined concentration of target impurities such as ammonia, chlorine, or chloramines (mg/L).
- 5 grams of ClorAm-X = 1 slightly rounded teaspoon of ClorAm-X

Dosage can be confusing. The best way to understand this is to realize that one teaspoon of ClorAm-X will only treat a limited amount of water. As the volume of water being treated increases, AND/OR, the concentration of ammonia, chlorine or chloramines increase in your water, the dose of ClorAm-X will need to be increased. This is where calculating the correct dosage comes into play. By using the correct dosage of ClorAm-X you not only eliminate the risk of overtreating your water but you also reduce your water treatment costs. And we all know that a penny saved is.....well, another aquarium or more fish.

In order to calculate your dosage there is some information that needs to be obtained.

- What is your target water impurity (Ammonia, Chlorine, or Chloramines)?
- What is the concentration (in mg/L) of this target impurity?
- What is the volume of water being treated? (How much water are you replacing?)

Tap water is treated with Chloramines or Chlorine to act as a disinfectant for lots of water borne diseases and bacteria. Chloramines are used by larger public water suppliers because it is more stable (it lasts longer) than chlorine. Chlorine is still used in many public water supplies as well as residential water wells which have an integrated chlorinator. The same dosage formula theory applies for chlorine and ammonia. Since this product review is directed toward aquarium enthusiasts doing water changes and my water contains chloramines, I will use chloramines as the target impurity.

To determine the concentration of Chloramine or Chlorine in your tap water you can contact your water utility company. The Safe Drinking Water Act requires all public water suppliers to test drinking water for a large list of parameters. My water utility representative

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said they are required to keep the concentration of chloramines between 0.5 - 4.0 mg/L. At my request, they provided me the chloramine testing results at the location closest to my house. During the past year the concentration of chloramines was between 1.0 - 2.0 mg/L in my drinking water.

Since I am treating for chloramines, I do not want to use the dosage table provided on the ClorAm-X container since it is clearly marked to treat for total ammonia. I must calculate my dosage. To be safe, I decided to use 2.0 mg/L, the highest concentration of chloramines in my tap water last year. Since one ClorAm-X "dose" will treat for 3.2 mg/L of chloramines and my water only has 2.0 mg/L chloramine, one exact dose will already be over 50% more ClorAm-X than what is needed to treat my tap water. Be careful...that extra teaspoon for good measure may be a significant overdose.

In my example above, the exact dose was already >50% more than necessary to treat my tap water at its highest concentration of chloramine in the past year. If my calculation is correct, a 5 gram dosage of ClorAm-X is enough to treat 66.4 gal of water with a 2.0 mg/L concentration of chloramine. The dosage chart on the ClorAm-X container implies a 5 gram dose will treat 41.5 gal. The difference is my target impurity is chloramines not ammonia. Our Central Texas water has great buffering capability but an overdose resulting in a pH drop may be a problem with ultra sensitive fish.

Dosage Formula:

$5.0 \text{ grams} \div (41.5 \text{ gal.}) @ (3.2 \text{ mg/L chlor-}$

$\text{amines treated}) = 5.0 \text{ grams} \div (X \text{ gal.}) @ (2.0 \text{ mg/L chloramines in my tap water})$

"X gal." is the volume of water, with 2.0 mg/L of chloramine present, that is being treated. This is what we need to know to properly dose our tap water.

Solve for X gallons:

Cross multiply

$10X = (41.5) X (3.2) X (5.0)$  or 664

$10X = 664$

$X = 66.4 \text{ gal.}$

Result.... 5 grams of ClorAm-X will treat 66.4 gal of tap water with a 2.0 mg/L concentration of chloramine.

If my tap water had 1.5 mg/L of chloramines present, 5 grams of ClorAm-X would treat 88.5 gal of water.

To calculate your volume of water treated, just substitute your actual concentration of chloramine in your tap water.

If your water utility uses chlorine, substitute 2.0 mg/L chlorine for the 3.2 mg/L chloramines in the left half of the equation. Also, substitute the actual concentration of chlorine in your tap water in the right half of the equation. Solve for X and you will have the volume of water treated.

Good luck and remember we don't want our fish ending up like Anna Nicole Smith.....dead from an overdose.

■ Tony Spinelli

## Cichlid Projects: Raising Cichlids Outside

One of the many wonderful aspects of living in southern Texas is the ability to maintain tropical fish species outside for a good chunk of the year. This is the third year I have been raising fry outside. I am far from mastering outdoor aquaria, but felt compelled to share some of my successes and failures thus far.

My operation so to speak, is modest. I have a child's swimming pool of around 400 gallons.



Photo by Greg Steeves

There have been other quite large commercial operations in the region that have dealt in multiple ponds containing thousands of gallons in volume. Years ago, one of the first commercial aquatic plant business in the US was thriving in New Braunfels. Evidence of this can still be seen today in the Comal River that winds through Landa Park. Many exotic plant species have taken up permanent residence in large

beautiful patches along the swift flowing streambed. In the same river, and also in the nearby Guadalupe River introduced fish species also abound. Large *plecostumus* (*Plecostomous punctatus* probably) make their homes in the mud backs amid large waving swatches of *ludwiga* and *hornwart*. Large *Oreochromis mossambicus* are as common as our native *Herichthys cyanoguttatum*. The lesson here is to ensure that there is no chance of your tropical species somehow getting into our native waters.

My first attempt with exterior aquaria was a Rubbermaid® tub placed on the patio containing a dozen *Pseudotropheus saulosi*. It was in November and although the day highs were quite comfortable, the evenings dipped down into the 40's. This proved to be a little too low for the mbuna. Changes in temperatures are more forgiving in larger volumes of water.

Two years ago, the experiment involved 400 gallon kiddie pools, and approximately thirty each of the following species: *Pundamilia nyererei* "Python Island", *Mbipia lutea*, and *Labidochromis* sp. "pearlmutt". These were thrown in the pool as tiny fry mid June. I used no filtration or anything for water movement. The large surface area of the pool provided ample oxygen exchange. I would skim the water surface and net debris from the bottom occasionally. About once a week I would bend the plastic side of the pool down allow-

ing water to flow out. This is how I made my water changes. A little dechlor and water straight from the hose was the extent of my maintenance. I added some bricks to the bottom of the pool with the idea that the fry would have a place to retreat to in the case of hungry birds or other creatures.

I used no cover to shield the water from both the elements and the critters. The only animal (that I know of) that got into the pool was a small rat snake. I have no idea if it actually got to snack on any fish. We lifted it out and released it in the neighbors yard. I didn't see it back in the pool, however it was a regular visi-

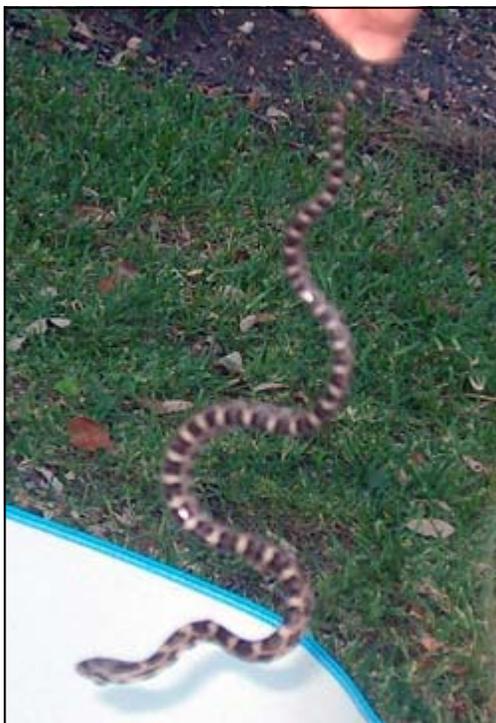


Photo by Greg Steeves

tor to the small goldfish pond we have nearby.

Every now and then I would sprinkle a bit of flake food on the surface. By August, the water would bubble with activity when fed in this manner. With constant algae growth, small insects falling in, and my feeding of flake, the small cichlids grew rapidly. I pulled the pond fish out in October before our auction and they were already showing adult coloration. This experiment went very well so I decided to try it again the next year.

My setup this time around was the same as last although I started much earlier. My first fish (*Labidochromis caeruleus*) were introduced to the pool the last week of March. This might be just a little too early. Although the fish survived, they were very lethargic. The nights still get a little too cool at this time. By the second week of April the weather has warmed to a much safer level. The large water volume holds the heat of the day much longer once the sun goes down, as it did only a few weeks before. The temperature, with day highs near 90F and night lows around 65F, is almost perfect for our young cichlids. We live in a heavily wooded rural area. The first of April is prime time for leaves falling from the live oaks. It is a constant battle daily to keep the pool cleaned of falling foliage. Just around the time the leaves have finished dropping, the live oaks begin releasing pollen. This tarnishes the water so dark that you cannot see through to the bottom of the pool. With the pollen comes small round seed like grains that sink in mass numbers through the water. As if this wasn't

enough, the webworms are falling from the overhead trees and their carcasses decompose tarnishing the water clarity further. To avoid this I would suggest somehow covering the pool. I will be tearing my pool down to administer a through cleaning. I will also be cutting the overhanging branches down and propping a "party tent" over the pool. I think considering the horrors of falling leaves, webworm infestation, and pollen pods, it is best to either tarp the

filtration and just let them grow, which they did. The acrylic vats held about 125 gallons. We threw power heads attached to sponge filters in them. The algae still took over pretty quickly and covered the sides in no time at all. We threw some fish in there that we wanted fry from. These included *Neochromis rufo-caudalis* and *Thoracochromis brauschi* among others. The experiment went very well with both species producing fry.



Photo by Greg Steeves

area or wait until the first or second week of May when the scourge should have ended.

This last year we had some vats on the back patio and a couple kiddie pools with tent roofs over them. We had *Pyxichromis orthostoma* in one of these pools. We put a couple hundred tiny fry of this endangered species out with no

Jeff Johnson has assisted me through the years with tidbits of advice on keeping fish outdoors in our climate. He has suggested that you can safely place cichlids outside April 15th and harvest them October 15th. I believe this to be bang on. Even at that, we have six safe months that we are able to raise our fry. My only amendments to this to keep in mind the falling leaves and pollen cycles. I feel that if I were to do this in April, I would make certain that there is some sort of cover to protect the surface. I have considered setting up a car tent (those canvas covered car ports) or building a large screen room beside my garage for my vats and pools. Whatever my next project is in regards to this topic, I'm certain there will be a part II.

■ Greg Steeves

**Species Profile:****Paratheraps bifasciatus**

Beautiful, highly aggressive, intelligent, and personable, do you believe that I am describing a puppy or a fish? Well, I am talking about a very large, beautiful cichlid that comes from the southeastern part of Mexico, the *Paratheraps bifasciatus*. It is commonly called the Bifa, as well as the Twoband Cichlid or Two-striped Cichlid. The *Paratheraps bifasciatus* used to be called *Vieja bifasciatus* and also *Heros bifasciatus* as well as other names.

This unique cichlid grows up to 14" and ranges from the lower Grijalva, Usumacinta, Chompan, and Candelaria River systems. The Usumacinta River flows between Mexico and Guatemala, so I guess you could say that it is from Central America or North America. It lives best in neutral water with a pH level from 7.0 - 8.0 and does best in warmer temperatures of 75 - 80 degrees Fahrenheit. It lives around the roots, plants, trees or fallen trees, and hollows eroded in the banks of the rivers.

Some people are known to say that this fish is the most or one of the most colorful Central American cichlids with its mixture of reds and greens and dark black line or blotch down its side. It is most colorful in the breeding colors, which is when the reds become brighter and more pronounced and their eyes turn a haunting yellow color.

This fish is not only beautiful but is intelligent and personable. They come to recognize their owner and the family that is always around and

will come up to the glass and stare you down, but let a stranger come into the room and it will hide behind driftwood and rocks the best it can.

The Bifa has a reputation of being very aggressive and will chase tank-mates and claim its territory. If you are going to keep this fish, it needs to be kept in at least a six foot tank with many rocks and caves for it and its tank-mates



Photo by Kenneth Harlan

to hide in. The tank-mates need to be equally robust and hardy species in order to put up with the constant challenging that the Bifa will do. It is best to keep them as established and compatible pairs and watch them carefully. A tank divider needs to be kept handy incase the male becomes too aggressive with the female, as I found out personally.

If one is to think about breeding this fish, size

consideration needs to be taken into account. This fish will grow quite large, and a mature pair, at least six inches and eight inches need to be in a six foot long tank. The male will be larger and much heavier bodied than the females. The water needs to be soft or neutral. The Bifa needs time to acclimate themselves and must have many large smooth rocks with many caves for the female to hide from the male in its constant aggravation. This is a good time to feed them heavy on krill and also some type of vegetation, as they are Omnivores.

The male will find a smooth hard surface for the female to lay her eggs on, even if it is the bottom of the tank. This cichlid is a substrate breeder, meaning that the female lays her eggs on a solid surface and then the male comes over them to fertilize them. The breeding process can take up to two hours or longer, and its broods can be from 500 to 1000. Both parents, but mainly the female will fan or mouth the eggs to keep them clean and keep the water circulating over the eggs.

After a few days, the fertilized eggs will hatch, and the unfertilized eggs (white fuzzy looking eggs) will remain on the breeding surface or the parents will knock them off. The female will collect her wigglers in a group and keep them together and fanned with her fins. After about six to seven days the wigglers will start becoming free-swimmers. As they try to swim and take off from the bottom like birds trying to fly, the parents will keep them grouped in one pile. After ten days, all the fry will be free-swimming and will form a cloud around the female or possibly both the male and female.

The fry are very slow growing and need to be fed micro-worms at first, and after about eight days, they may be fed newly hatched brine shrimp or frozen brine shrimp. The parents will also crush up their food and filter it through their gills so that the small fry can eat. The parents will keep the fry around themselves for several weeks teaching them how to look for food.

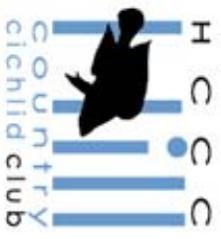


Photo by Kenneth Harlan

If the tank that you are trying to breed the *bifasciatus* in is too small or does not have enough places for the female to hide there will be trouble. The male will get very aggressive towards the female after a few weeks and will beat her up very bad, to the point of killing her.

With a little work and determination, the *Paratheraps bifasciatus* can be very beautiful and enjoyable fish to include in any collection of larger South, Central and North American species. They have been an enjoyable fish for me.

■ Kenneth Harlan



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