

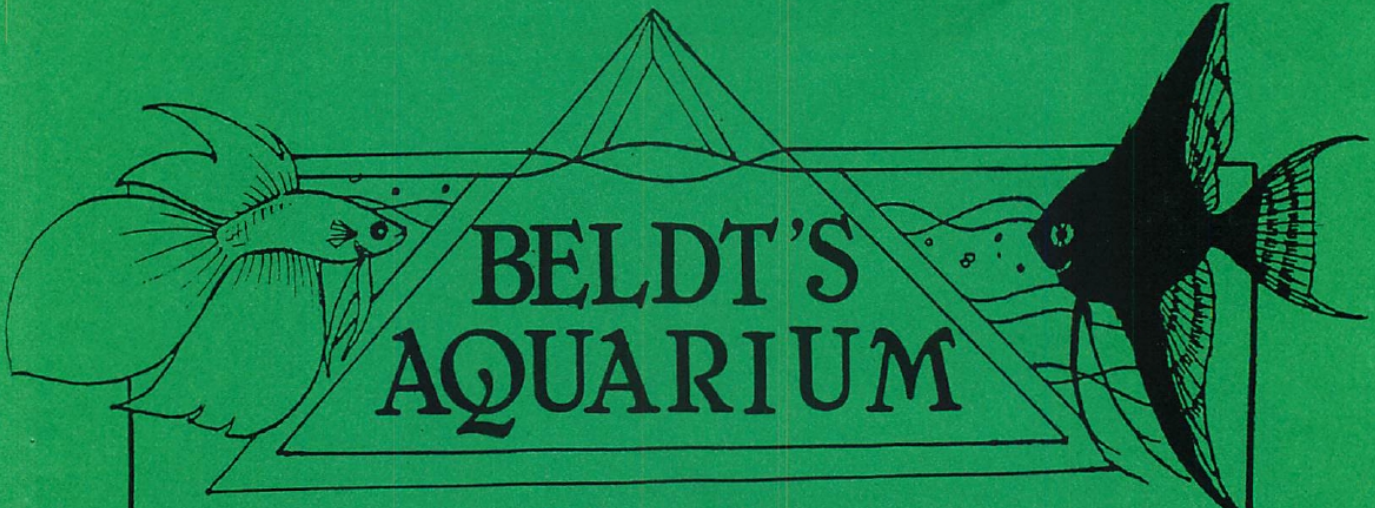
THE
DARTER

MARCH
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1990



PUBLICATION
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MISSOURI AQUARIUM SOCIETY, INC.



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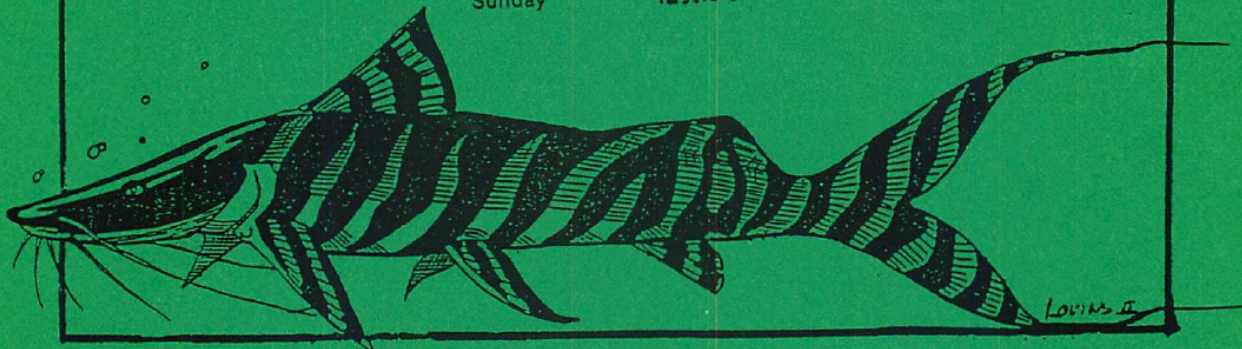
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THE LABRYNTH'S LAIR

Fred & Sue Cotterell
 Missouri Aquarium Society, Inc.

Let's make one thing perfectly clear, my fellow aquarists:

Rumors of the "Lair's" demise have been greatly exaggerated. The "Lair" will continue, so critics and fans alike, take note! There will continue to be more bubble stuff in each issue of THE DARTER, as long as we don't run into writer's block again.

Further, before the story gets too confused, there is no C. Cotterell. Sue and I are happily married, and there is no rumor of divorce looming on the horizon. So don't sell the movie rights to "Death Of An Aquarist" just yet. Also, the National Idiot isn't quite ready for the story either. It was just a mistake on behalf of TFH (December '89, page 105).

Now, on to the business at hand....

ADVENTURES IN ASIA - THE ASIAN COMMUNITY TANK
 PART II - Setting up...Plants and Other Stuff

The last time we were together, we discussed the compatibility of certain fishes of Asia. We would like to correct the listing by moving the genus Trichopsis to the "small" side of the ledger. If one places the Croaking Gourami into a large enough tank with smaller fishes, the dominant male will seek out and establish guarded territories, and this sort of thing is just not possible in a tank containing some of the larger barbs and gouramis. Don't get us wrong, a Croaker can be, and is, a pretty tough little customer in any tank, but in a tank of say 30 gallons or larger, the chances are greater for harmonious living.

Recently, Sue and I lucked into an old Metaframe 55 gallon tank. At first, we thought of moving our larger barbs and gouramis into it, but the tank that they resided in is well established, and we didn't have the heart, or guts, to upset the apple cart. So, we began planning to put our advice into practice on a large scale.

First, we began to gather the aquascaping materials to set up the tank. Now you can ask Sue, I am a born collector or, as Sue would put it, a real pack rat. I live by the credo "If you throw it away today, you'll need it tomorrow." So, we have a rather large assortment of unused aquarium "junk" including plastic plants, under-gravel filter plates, heaters, odd jars, and small bowls. We could elaborate on this list, but then we'd be straying from the subject.

In amongst the "junk", there was a real nice piece of driftwood, complete with some Java Moss and slate. After adding four inches of used gravel, the driftwood went in as the centerpiece. We then began filling the tank. You'll notice that we didn't say anything about under-gravel filter plates, we don't use them with our live plants.

As the tank filled, we placed in an old Supreme 300 watt heater (There it is again, more "junk".), and adjusted it to 80° F. The water was treated using the old standard - Waterrite™, knowing that it automatically adjusts the pH. We let the tank age for three days before adding any fish or plants. You might ask "Why only three days?". Remember, we used "old" gravel from an existing tank. We didn't bother cleaning the gravel so we wouldn't remove needed fertilizer for the live plants or destroy the bacteria in the biological filter. So the gravel went in, crud and all. After three days, we tested the pH and found it to be 6.8. We also did an ammonia test which came out "zero". (It still reads "zero" after two months.)

We began adding the fish a few at a time. The first tenants were some Tiger Barbs that had been inhabiting a ten gallon tank along with three Skunk Botias. Eventually, these all went into the tank along with some Cryptocornes and Aponogetons that were there. We also dove into the "junk" boxed for some plastic plants to fill in the voids. These were placed in the darker corners of the tank. We are utilizing two 24" 15 watt, fluorescent bulbs, and we haven't quite figured out how to split the set to cover the entire top of the tank.

Filtration - ah, I knew we were forgetting something. We are utilizing two old box filters and an old Supreme PME to provide filtration for the tank. As we said before, there is no under-gravel filters in the tank as we find that they are not too beneficial to the health of live plants.

The first Anabantoid residents of the tank were some *Betta picta* that were inhabiting another ten gallon tank in our fishroom/bedroom. These little fellows made themselves right at home and proceeded to spawn the first night in the tank. In fact, some of their surviving spawn are now replacing some of the older fish as they pass on.

Currently, we have about thirth inmates in the tank. There are even some Pearl Gouramis that will kbe moved into different quarter next month. Our scavengers are some Skunk Botias and a single Queen Botia bolstered by some out of place Cory Cats that will be replaced as soon as we get down to collecting other scavengers from our local shops.

The plants, at first, grew slowly. But, now, we are having a hard time keeping up with the long flowing leaves, some growing to a length of almost three feet. As for their arraangment, we attempted to [place live plants in the back of the tank and plastic plants on the sides, forming an arch with the front being an empty swimming area. Our foreground plants, all smaller Aponogetons, have already begun to send our runners with smaller plants.

This tank has become the central show tank in our living room. It always sparks some discussion when friends come to call. We challenge any one to try their hand at setting up a tank to represent a certain biotype. It can be fun and educational.

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*           SOUNDS FROM THE SOUTH
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*           Bob Reich
*           Missouri Aquarium Society, Inc.
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Due to the fact, or facts, of having to go back through the files to complete the article that I'm working on now, and since it is taking longer than I expected to complete it, please read the following as a well tested method for breeding *Betta splendens*.

MY BASICS FOR BREEDING BETTAS

- Step 1: Set up a 5 gallon tank (one-half full of water).
 Add heater.
 Add one-half of a styrofoam cup.
 Add chlorine remover.
 Add filter (optional).
 Acquire a good supply of brine shrimp for adults.
 Acquire a good supply of microworms and live baby brine shrimp for fry.
- Step 2: Find a willing male and female.
 Introduce them to the tank.
 Wait.
 If things don't go, separate and try again two or three days later.
 (When the female is ready, she will "flare" back at the male and show vertical lines down her sides, unless she is a Cambodian. If she is a Cambodian, you'll see the eggs when she is ready.)
- Step 3: After spawning, the male will keep the female as far away from the nest as possible.
 Remove the female.
 Leave the male in the tank to care for the fry until they are free-swimming.
 Remove male when the fry are free-swimming (about three days).
- Step 4: Do a first water change at about two weeks (Roughly one gallon).
 Do regular water changes every nine or ten days depending on how much you feed.
 Thin out the fry between one and three months of age. (At three months of age, the males should be distinguishable.)
 Pick out the best males for breeding and showing.

 *
 * SPAWNING HAPLOCHROMIS BARBARAE *
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 * Pat Tosie *
 * Missouri Aquarium Society, Inc. *
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At the 1988 A.C.A. Convention in St. Louis, I bought six *Haplochromis barbara*. I took the juvenile fish home and put them in a 55 gallon community tank that was heavily planted and had several caves built in it. Out of my original six fish only four reached maturity, three males and one female. These were the beginning of my spawning group. It was approximately nine months before they produced their first spawn. I was only able to save four fry, one male and three females. Any others must have been eaten.

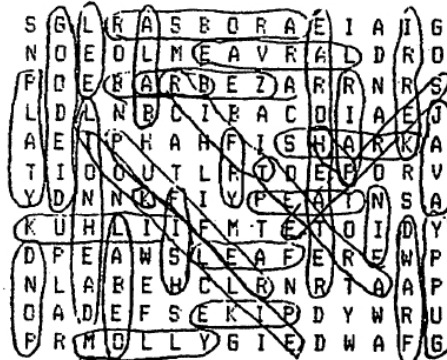
In breeding color, the male has a deep blue body with blood red fins and the female turns a yellowish-brown. In normal coloration, the male has a blue tinted body with light red fins. The female is a drab silver color. Both fish show several vertical bars with a couple of horizontal bands. My males are about four inches and the females about three and one-half inches.

Following the second spawning, I discovered the female earlier and was able to move her to a "twenty long" maternity tank, with a couple of flower pots to offer privacy. It took two weeks before I saw any fry and about two more weeks before she let them out for good. The fry were ready for newly hatched brine shrimp and crumbled up flake foods as soon as I saw them. The female was ready to spawn again in two months.

I was never able to witness the actual spawning, but I knew when they were ready because the dominant male would color up and chase the other males into a corner. The female would fatten up. This behavior continued until either they spawned and/or I removed the female.

I have not been able to find any reference material showing anything about the *Haplochromis barbara*, so I keep them in water that has a pH of 7.2 and a hardness of 400 ppm. When Dr. Paul Loisel was in St. Louis for our show he corrected my spelling and identified them.

SOLUTION
 From Page 14



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SPAWNING THE PEPPERED CATFISH - CORYDORAS PALEATUS

Denyce K. Trudeau
 Kitsap Aquarium Society, Inc.
 Silverdale, Washington
 THE KITSAP AQUARIAN - May, 1989

Corydoras paleatus is a native of Southern Brazil and parts of Northern Argentina. This a peaceful fish which reaches up to three inches at maturity. Neutral, medium soft water with a temperature range of 72 to 80° F. is preferred. All regular aquarium foods are readily accepted; but black worms are a welcome delicacy.

In the majority of the catfish species, the female is somewhat the larger; the *Corydoras paleatus* being no exception. The ventral fins are slightly more rounded in the female. The male has a more pointed dorsal fin. One two and one-half inch female and four two inch males were put into a ten gallon spawning tank in which there was no under-gravel filter or gravel. A sponge filter, a heater (pre-set at 74° F), and a four inch bubble wand were used. Java Moss was scattered throughout the tank. No salt was added to the water. After adding Black Water Extract and Stress Coat according to label directions, the pH measured 7.0, total hardness 120 ppm., total alkalinity 0 ppm. The water temperature was 74° F.

The breeders were fed live black worms three times daily. The light was left on eight to ten hours per day.

After four days, the belly of the female took on a reddish hue. She was noticeably more plump and the strong first ray of the pectoral fins reddened and thickened.

The first sign which indicated that spawning was soon to follow came two days later, when one of the males persistently swam over the back of the female, bringing his barbels into occasional contact with the place her neck would be, if she had one. The pair came to rest on the aquarium bottom, and assumed a strange position, not easily described. The male rolled over nearly on his back. The female then clasped him at a right angle position, crossing breasts. Her right side barbels were caught beneath his left side pectoral fin. In this position, they remained for approximately one-half a minute. Upon freeing themselves, they swam independently of one another.

It was then seen that the female had pursed her ventral fins together, and that in between them she was carrying two to four eggs. She searched for a place to attach them, going up and down perspective places with her mouth. Once she found a suitable place, she pressed the eggs there, where they adhered. First,

she chose a spot in the Java Moss. then the uplift tube on the sponge filter. Sometimes, they were even attached to the sides of the tank. This process was repeated over a period of about two hours, at which time she had deposited close to one hundred eggs, I'd estimate.

The male did not follow the female when the eggs were deposited. Neither did he pay any attention to them. There was certainly no internal fertilization, as with livebearers. It is claimed by many that the female takes the sperm in her mouth and applies it to the spot where the eggs are to be placed. Observing, under bright light, I could see no possibility of her gathering sperm in this way. Perhaps I just missed something. Just in case, I'll watch future spawnings with extra attention to this aspect of their spawning.

Because the parents provide no definite care for the eggs or the young, the parents were removed when spawning was complete. Methylene Blue was added to combat fungus. The lights were then turned off (the eggs are extremely sensitive to light); only being turned on long enough to check the condition of the eggs and to watch for signs of hatching.

On the fifth day after their being laid, the eggs hatched. The fry made themselves scarce for the four days. When the fry were five days old, microworms were fed three times daily. At two weeks, newly hatched brine shrimp were fed twice daily, with microworms at once a day.

At six weeks, a one-by-one count was done showing that thirty-seven fry had made it to this point. At eight weeks, another count showed thirty-six fry. It is said that the yield is nevermore than thirty or forty percent of the eggs laid. Why there is such a high number of infertile eggs is still a mystery and yet to be explained.

This is definitely a worthwhile species to spawn. If you find yourself with a surplus of catfish in your aquariums at home, there are pet shops that are ready to jump at the chance to take any extras that you might have.

SOUNDS

From Page 18

Step 5: Choosing a show Betta.

Body size - minimum length one and one-half inches.

Size of body to finnage - compare overall length.

Anal fin - at least one-half of body length.

Ventral fin - no set yardstick for measuring (width is compared to length.)

Pectoral fin - large and full (desired).

Dorsal fin - one-fourth of body length.

Caudal fin - one-half of body length.

Overall enthusiasm - How good does he display?

I hope this helps you in your quest for a successful betta brood and determining what to look for in choosing a betta to show.

By next issue, I hope to all of the information I need for the article I mentioned earlier.


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*           MY SECOND VIEW OF THE UNDERWATER WORLD           *
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*                                     Pat Tosie                 *
*                                     Missouri Aquarium Society, Inc. *
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My first view of the underwater world has been, and always will be, my aquariums. My second view was scuba diving.

My family and I went to Hawaii two years ago, and I got my first experience at seeing, up close, underwater life in all its glory while snorkeling. Just this year, January, 1990, my family and I returned for a leisurely vacation break. This time, Kathie and I decided to take scuba diving lessons.

We took about classes for a week, some quizzes, and then a written test, before we even got into the water. Our first lesson was devoted to getting acquainted with equipment. The biggest obstacle was learning to breath underwater. Finally, it was time for our first dive. Kathie's first dive was also her last, since at about twenty feet she started having pains in her ear. She and an instructor went to the surface. We found out the next day that she had bruised her eardrum.

I had three more dives, the deepest to sixty feet for forty-seven minutes. Every time I went under water, all I could think about was how beautiful and peaceful it was, and the millions of dollars worth of fish swimming around me. I saw some of the most impressive looking fish that you could ever dream about. Schools of Yellow Tangs, Triggerfish, and Moorish Idols were everywhere you looked. I saw an Eagle Ray about thirty feet from me, as well as several different kinds of eels. One eel, a Dragon Eel, about four feet long, came out of the coral acting like it was going to bite me, but he got within three feet of me, and turned. I saw a couple of bright green starfish, that had spikes covering it. The scuba master called it a Crown of Thorns. The divers don't like them since they eat coral. I found it unusual that underwater, there appears to be a distinct dividing line where the coral stopped and the sand started.

I went through an underwater arch made of lava. I saw a fish that looked like a barracuda that the scuba master called an Ono. I even saw one fish that looked like a piece of floating seaweed. It was brown and white and about one inch long.

I could go on for pages talking about what I saw and did. But, I think I'll let your imagination soar. I hope that you too can someday experience the thrill of living underwater, even if only for a short time.