# DEETA JACE

OFFICIAL PUBLICATION OF P.V.A.S. NOVEMBER 1977 50¢ per copy Volume 8 Issue 11

DELTA TALE is published for the benefit of the Potomac Valley Aquarium Society (formerly the Potomac Valley Guppy Club), a non-profit organization, established in 1960 for the purpose of furthering the aquarium hobby by disseminating information, encouraging friendly competition, soliciting participation in its show, and promoting good fellowship. Correspondence should be addressed to Secretary, P.V.A.S., P.O. Box 6219, Shirlington Station, Arlington, Virginia, 22206. Original articles and drawings may be reprinted if credit is given the author and DELTA TALE. Two copies of the publication in which the reprint appears should be sent to DELTA TALE which will forward one copy to the author. All materials for inclusion in the DELTA TALE must reach the editor no later than the Saturday after the monthly Monday meeting.

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This month's cover is a reprint of March's cover.

#### From the editor:

Thanks are due to the great people who helped with the October 21 dinner and auction, especially to Pat Mahoney, who handled all those last minute details.

The speaker at the dinner was Ed Taylor of Virginia Beach, one of the outstanding fish breeders in the country. He gave a beautiful slide show on "Interrelation of Aquarium Fishes". The talk was well-done and the slides well worth the price of the dinner.

The auction was a success, with many ususual species offered. It got off to a slow start, but finally picked up so well that it lasted until 7:00 p.m.

Again, many thanks to all who helped, especially to our hourse suctioneers, John Jessup, Steve Siska, and Craig Tingen.

#### RLECTION '77

Elections will be held at the November membership meeting, November 21, 1977.

The slate of officers and board members is:

President:

Pat Mahoney

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Open

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Board Member:

Tom Lighton

#### WE MEED YOUR VOTE!!

#### 1977 BOWL SHOW CATEGORIES

CICHLIDS

OTHER EGGLAYERS/LIVEREARERS

November Haplochromis

Mouna, non-pseudotropheus

Open

Tetres Characins

Opez

MOVEMBER IS FOR DOUBLE POINTS

December NO BOWL SHOW-CHRISTMAS PARTY

#### BRING IN THE CLOWNS

By Susan P. Sprague, PVAS

After looking through a number of exchange publications and reading the few cichlid books I own, I found that there is little written information on Spathodus. I have not made a study of these fish but I have watched them in my tanks. As homely as Spathodus are, this fish can win your heart. They have a way of hopping about on their pectoral fins and rolling their eyes at you that just makes them seem like a human clown.

Spathodus come from Lake Tanganyika in the Rift Valley system of East Africa. The water in this lake is alkaline (averages 9.0 pH) and hard. Spathodus are rock dwellers along with the similar Eretmodus and Tanganicodus species. These three also have in common the mouthbrooding of their eggs. This method of breeding and raising of eggs is in contrast to the Julidochromis, Lamprologus and Telmatochromis species who are substratum brooders. All these fish share the same rocky habitat in Lake Tanganyika.

In my aquaria the Spathodus exhibit distinct methods of living. They do not normally swim in midwater. They are found to rest on the gravel or on top of rocks with their pectoral and ventral fins held rigid for support. They scoot around in a manner similar to the salt water gobies. When being chased by their tankmates, I have found them perched in the crook of an aquarium plant as if they were a bird hiding in a tree. They do come to the surface to feed but it seems to require some effort. Spathodus do not appear to be fussy eaters. They consume anything offered from flake, frozen, paste and live foods of every variety.

Spathodus are very pretty in a subtle way. They are basically a beige-grey fish with 3 semi-straight rows of turquoise dots which stop above the area where the anal fin begins. Around the lower part of the eyes and the gill covers the dots give way to wavy lines. The lips are a faint blue. This coloration can change to the fish becoming a muddy brown and the dots turning dark. My male seems to flash a saddle along his dorsal in the area above the anal opening. This seems to convey aggressiveness. Also my male seems to have a higher forehead (area between the eyes seen from the side) than my female.

Approximately two years ago I purchased 8 tiny (1") fry from a local hobbiest. Since I've had them, they have been housed at various times with Lamprologus tetracanthus young, Merry widows (Phallichthys amates) and Madagascar rainbow fish (Bedotia geayi) in different 20 gal. long tanks. Through all this changing around, I ended up with 3 adult Spathodus—an approx. 2½" male, 2½" female, and another 2½" female. When we moved, all our adult Tanganyikans were placed in a 55 gal. tank. This included many

Julidochromis marlieri and J. transcriptus, a pair of J. ornatus, a pair of J. regani and the 3 remaining Spathodus. These fish seem to coexist peacefully in this tank though it is extremely overcrowded.

The 55 gal, tank is generally without rocks. There is a huge wad of Java moss, some floating Hygrophila, and two large box filters. The gravel is basically white with some other colored gravel interspersed.

My fish have spawned 7 times that I'm aware of. On the 4th time I noticed the female had a mouthful. On the 14th day I removed her from the 55 gal. tank and placed her by herself in a  $5\frac{1}{2}$  gal, with Java moss, a filter, and heater. I don't know if she ate the eggs or spit them out and they died but I ended up with no fry.

The next time I noticed that she was carrying eggs I dutifully took the pH (7.2) and the DH (230 ppm) for our BAP program. At the 14 day mark I decided to force the young and raise them the rest of the way myself. I had quite a time since she was so determined to hold onto those babies. I eventually got 6 fry about ½ TL. Within the first few days I lost 3 of the young. Now at about 45 days the Spathodus babies are ½ I have had a harder time raising these young than any other mouthbrooder fry. I had a difficult time raising live food for them-it all seemed to be at it's low point. At least now the young will take flake food and seem to be trying some tubifex worms.

After forcing the fry from the female Spathodus, I put her back into the 55 gal. community tank immediately and within a week she had spawned again. I waited the 2 weeks again but a few days before I took her out she appeared to have swallowed the fry. I tried to force her again but she was more determined than I. I thought I saw one fry but after the female was in the 5½ gal. for 2 weeks there was no sign of the one baby. I put the female back into the 55 gal. again and took the only 3 surviving young and put them in the 5½ gal.

The female has spawned again and I am now approaching the 2 week time. The pH was 7.3 and DH of 180ppm. I will try to force the babies again since that seems to be the only way I will get any fry. She may be very good mother but with the fry being small and inactive when released, it is impossible to see them in a tank. Even if she does release them normally, they probably starve to death.

I did observe part of the last spawning. The two quiver at each other and then they start swimming in an oval pattern. Pirst the female goes around and releases an egg (I assume so though I never saw any). Then when the male is in a position above where the egg must be, the female is there mouthing at his vent and picks

up the egg, I assume. The female seems to stay in an upright position when laying the eggs but the male bends quite a bit to the side with the back one-third of his body almost completely flat on the gravel. I didn't see any eggs since the gravel in this tank is mostly white and approx, the size the eggs would be.

As you can tell, I find this fish fascinating and a delight to have in my tank. If you feel like being entertained by a fishy "clown", be sure and obtain some Spathodus.

#### BOWL SHOW REPORT FOR OCTOBER 1977

#### CICHLIDS

1st Griffin, W .-- Black lace veil 2nd Fasil, B .-- Marble

3rd Terwilliger, J .-- Marble

#### TILAPIA/SERATHERODON

1st - - -2nd - - -

3rd - - -

### MALAWIAN, MON-MBUNA, MON-HAPLACHROMIS 1st Warren, K.--Tellow sided peacock

2nd Warren, K .-- Lobey lips 3rd - - -

#### EGGLAYERS/LIVEBEARERS

### SHARKS/LOACHES

1st Mahoney, P.--Rainbow shark 2nd Mahoney, P.--Kuhli loach

3rd Mahoney, P .-- Redtail Black Shark

#### CATFISH, NON-CORIDORAS

1st Mahoney, P. -- Striped Raphael

2nd Mahoney, P.--Whiptail 3rd Mahoney, P .-- Porthole

#### CUPPIES

1st Lighton, T .-- 1/2 black red 2nd Lighton, T .-- 1/2 black red 3rd Lighton, T .- Green snakeskin

	MONTH	Ç	UARTER	ANNUAL		MONTH	QUARTER	ANNUAL
Warren, K.		12	12	151	Mahoney, P.	2	3 23	111
Terwilliger,	J.	2	2	14	Gerrett, R.		o o	76
Sprague, S.		0	0	10	Brocato, M.		1 1	33
Lensen, M.		0	Ó	6	Morrison, W.		0 0	20
Dickens, S.		1	1	5	Mahoney, M.		0 0	11
Hoffman, G.		0	0	12	Donnelly, J.		0 0	2
Fasil, B.		5	5	5	Lighton, T.	1	2 12	46
Griffin, W.		1	1	1	Heflin, T.		0 0	10
· ·					Trout, B.		0 0	6
					Terwilliger, J.		1 1	2
					Lembke, A.		0 0	17
					Dickens, S.		1 1	i
					Fasil, B.		2 2	2

Judges: Long. J. and Siska. S.

Judges: Walsh, T. and Garner, W.

#### NOTICE

MONDAY, 12 DECEMBER 1977

ANNUAL P.V.A.S. CHRISTMAS

PARTY

8:00 F.M.-COCA COLA BOTTLING PLANT BAILEY'S CROSSROADS, VA

EACH FAMILY ATTENDING MUST BRING
A COVERED DISH. CALL STEVE SISKA
(621-7923) FOR ADDITIONAL INFORMATION.

PACH PERSON IS REQUESTED TO BRING A FISH-RELATED

GIFT FOR EXCHANGE (\$2.00 MAXIMUM)

IF NO GIFT IS BROUGHT, A CHARGE OF \$2.00

PER PERSON WILL BE LEVIED.

IF YOU CAN ASSIST IN ORGANIZING THE PARTY, PLEASE CALL STEVE.

YOUR HELP IS NEEDED TO MAKE THE PARTY A SUCCESS.

#### CORYDORAS & TUBIFEX = SUCCESS

By Gerry Hoffman

Corydoras catfish are among the fish that most hobbyists have maintained at one time or another in their aquaria. Newcomers to the field of tropical fish are amazed at the peculiar shape, protruding barbels, and armor plating that are a few of these fish's oddities. Most are primarily bottom dwellers, found in nature in large groups stirring up slowly moving stream or river beds in a continual hunt for uneaten foods. Extremely peaceful to other fish and themselves, Corys are undemanding as to their water conditions, except that there should be no salt in the water.

Spawning various species from the genus Corydoras has been done many times and is not that difficult once the basics have been properly accomplished. These are having fish that are old enough to spawn, with several males for every female, a good conditioning diet, and their own private aquarium if you want to raise the fry. A 10 gallon tank is ideal, with gravel, aeration, and several broader leafed plants. Your catfish probably will decide to deposit their eggs on the glass walls, but they may prefer plant leaves, so give them the opportunity to choose for themselves. But above all, don't forget to give them what I find to be the key to a successful spawn - live tubifex worms.

Nothing will get a fish into its best spawning form than live foods, and no one know this better than the catfish itself. As bottom dwellers, Corys don't swim after moving foods such as brine shrimp, daphnia, or mosquito larvae, but rely on that food which has hit the bottom and stays there. Flake foods fulfill this requirement, but don't have that aphrodisiac quality of good tubifex worms. Just swish a mass of worms in the tank and watch the excitment hit the catfish once they know their favorite food is on the gravel. Transformed from a lazy swim to an agitated frenzy, they will scurry over every inch of the bottom in search of worms that are detected by their barbels. No need to worry about worms living in the gravel, for any healthy catfish delights in rooting through the bottom cover in search of strays. They will eat all they can find at one time, and daily feedings of the little red worms will soon find the females ripe with eggs and ready to accept the advances of the males.

I have had five spawnings this summer in six weeks among them three Corys, all of which followed about a week of intense feeding with live tubifex. Corydoras aeneus (the Bronze Catfish), C. Matae (the Bandit Catfish), and the albino cory (I thing the albino form of aeneus) all responded to my feeding and tank conditions with fertile spawns that now have baby catfish divided up into most of my other aquariums. Of course, they all had their share of flake foods, but only after getting their fill of live worms did they decide to spawn.

Spawning activity is near at hand when the females appear agitated and start swimming rapidly up and down the glass walls of the tank. Soon the males join in and are following her up and down, up and down, until everyone is moving somewhere. With C. aeneus, are seen seemingly scrubbing certain areas with their mouths as if trying to prepare spots that are immaculately clean. The males begin to swim around the female, nudging her belly and "neck" area, if you can visualize where a neck should be on a catfish. If the female is ready, she stops swimming, and one of the males, usually the largest, moves to a position in front of the female perpendicular to her, with his genital area in close proximity to her barbels. As he rolls on his side, she wiggles a bit with her mouth in contact with his underside. Both fish hold this position for about 30 seconds, then the males swim off. Several eggs quickly drop into the ventral fins of the female, which are clasped together to receive the whitish, spherical eggs, about the size of BB's (13 mm diameter). She soon swims off holding the eggs beneath her, until the proper site is found, which she commences to scrub clean with her mouth, and then presses her body to the glass wall depositing the eggs which adhere readily. About 14-15 eggs are released at a time, then the males swarm about the female again, and the process is repeated many times during the next hours until 150-200 eggs are released by each female.

With the Bronze Cats, I had two females and three males that spawned in a group. The six albinos in another tank turned out to be two females and four males. Both groups had enough males to keep one female busy mating while the other female was depositing eggs. Spawning the albinos proved to be an identical process to that of the Bronze Corys, with 14 eggs released in each grouping after a mating, egg size and color the same, and even time to hatch the same. At 76° F, the fry begin to hatch at 72 hours, and are colorless yolk-sacs with a tail. Even growth rates of the two types of Corys were identical, making it my guess that these are albino aeneus and not albino paleatus, the other albino corydoras. I hope to spawn my paleatus soon and compare their behaviour, time to hatch, etc., before being positive.

Slightly different in their spawning ritual was C. Matae. The pre-spawn activity was nearly the same, but not as intense, and only one egg is deposited at a time. Some of these eggs were placed on floating water sprite, most on the underside of plant leaves, and a few on tank walls. But all were done one at a time, and no more than 55 in a spawn. Curiously, the female tended to deposit her single egg clasped between ventral fins right next to a previously placed egg, eventually have small groupings of 5-7. Matae eggs were considerably larger (2 mm diameter) and took a full 4 days (96 hours) to hatch.

Although there is a typical spawning ritual of this genus, there is great controversy about how the eggs are fertilized. Some sources indicate that it is the female who completes the fertilization process by placing the sperm, which is collected in her mouth during the moments of contact with the male, on the spot where she subsequently deposits the eggs. Others maintain the effs are fertilized at the time the eggs are released by the female from sperm she directs toward her clasped fins, the sperm having been released during mouth

to genital area contact. After having witnessed several spawns, I still don't know how the eggs are fertilized.

First foods for young catfish are microworms, newly hatched brine shrimp, and finely powdered flake foods. After about 2 weeks of growth, I found the ideal food for rapid growth to be that catfish favorite, live tubifex. This time, of course, it has to be finely chopped with a razor blade into the smallest pieces, making a kind of tubifex mush which they can nibble on with their small mouths. At 8-10 weeks they are large enough to distribute to friends or sell, and you'd better do something or a spawn of 400 or more will soon be eating all your food and demanding all your available space.

Successful spawning and raising of the Corydoras catfish can be a fun and rewarding experience, and made easier with generous helpings of tubifex worms.

## bap REPORT

NAME	POINTS		
Susan & Mike Sprague	155**		
Ruth Brewer	260**		
Gene Aldridge	80		
John Jessup	55*		
Diane Nixon	70*		
Pat Tietjen	15		
Jan & Dave McInturff	395***		
Jerry Donnelly	10		
Gerry Hoffman	25		
Joe Paull	15		
Pat & Maggi Mahoney	10		

#### Spawnings:

Brewer: Pachypanchax playfairi, Pseudepiplatys annulatus

McInturff: Labeotropheus trewavasae

Paul: Apistogramma cacatuoides

Mahoney: Epiplatys dageti

- \* Breeder Award
- \*\* Intermediate Breeder Award
- \*\*\* Advanced Breeder Award

#### FISH HOOKED

By Marv
Reprinted from Hi-Fin
Arkansas Aqua. Society
Aug.-Sept. 1975

It started out as just a whim. We'd get some fish and watch them swim. A tank acquired, we were all set, or so we thought, but no, not yet. A pump, some gravel, and a filter-Soon had my pocket book a-kilter. Next a heater, was a must. It hung inside and winked at us. After that, more cash would drop. It had to have a light on top. The tank all set, a sight to see. With water sprite for greenery. A problem now what fish to buy. The regal angel caught our eye. Our seven babies, what a sight, We watched them often late at night. What tender lowing care they got, Their home was in the center spot. Until one day when we were gone, Two fish paired and chose to spawn. "Oh Boy", that's great but what to do, The fight was on I'm telling you. Another tank we'd have to buy, So we could raise our precious fry. From seven fish, we got three pair. By now our den had lost a chair. The wash room next, a likely place. It seemed we had some extra space. But not for long, it soon was packed, With all the tanks that we could stack. The garage was measured deep and wide. We had some room there on the side. We couldn't stop, I guess you know. Our poor old car would have to go. Three deep we placed them round the wall. Our fishy friends would have a ball. That's all, that's it, no more, no where. But that center section seems so bare. You think we're hooked, that well may be. We just set up tank ninety-three. We are broken down from stretch and strain. Our arthritus gives us pain. But when we are old and our life is past. No gravel to wash, or green algae glass, And our Maker says, come up here, pal. You think we could in a hundred Gal.??