DELTA TALE

MAY, 1981

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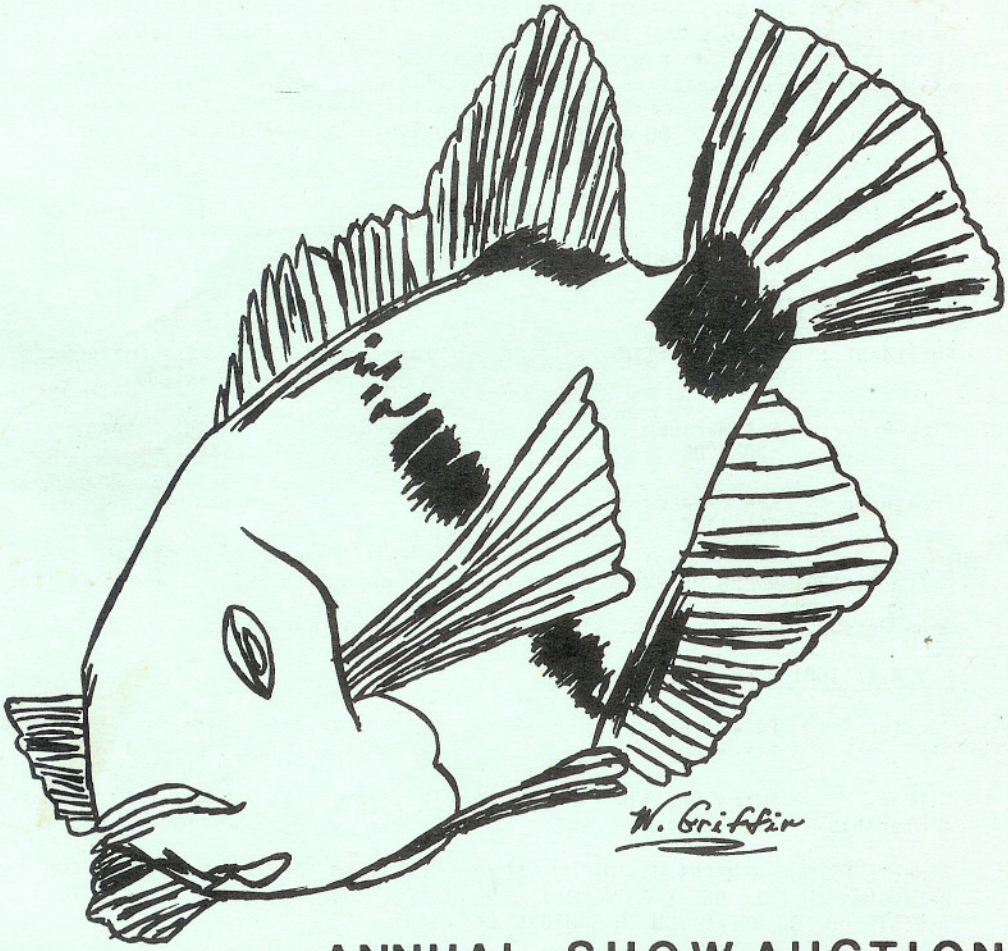

PVAS' ANNUAL SHOW-AUCTION

MAY 16-17

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 dissemination of information, encouraging friendly competition, soliciting participation in its shows, and promoting good fellowship. Correspondence should be addressed to: Secretary, P.V.A.S., P.O. Box 6219 Shirlington Station, Arlington, VA 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/artist. All material for inclusion in Delta Tale shoud reach the editor no later than the first Saturday after the monthly Monday meetings. The Potomac Valley Aquarium Society and the Delta Tale disclaim any responsibility for content or availability of advertised merchandise or service in these pages. Customer satisfaction is a matter to be worked out exclusively between the advertisers and buyers.

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MEMBERS OR NON-MEMBERS HAVING QUESTIONS ABOUT FISH, AQUARIUM KEEPING, AND BREEDING CAN CALL ONE THE THE OFFICERS LISTED ABOVE, WHO WILL BE GLAD TO ASSIST YOU, OR REFER YOU TO SOMEONE WHO MIGHT.

MINUTES OF THE BOARD OF GOVERNORS MEETING, April 6, 1981

Meeting was held at Pete Tietjen's home and called to order at 8:00 p.m. In attendance were Vince Edmondson, Ken Fisher, Darrell Holman, Woody and Nancy Griffin, John Jessup, Pat and Maggi Mahoney, Kenny Warren, and Pete Tietjen.

Ken Fisher gave the Treasurer's report, indicating that we have $1417.92 in the bank at the present time.

Wayne Hilburn requested that a notice be placed in the Delta Tale asking that the membership do write (or call) their representatives or senators with regard to legislation intended to save the National Aquarium. After discussion, it was generally agreed upon, and will be placed in the May issue.

Gerry Goffman has scheduled a BAP meeting at his home on April 26.

PVAS recently joined the American Catfish and Loach Association.

The White Rose Aquarium Society of York, PA will have their annual show on April 23-25 at the York Mall. The American Cichlid Association Convention will be held July 16-18 in Indianapolis, Indiana.

Woody polled the board with regard to having another summer picnic. It was agreed that the picnic would be held and that a $1 charge would be assessed to hopefully prevent a repeat of last summer's "no shows."

John Jessup reports that things are coming along for the May show and that he'll seek additional recruits at the April 13th general meeting. Some assignments have already been made. John requested and got a blank check to purchase the raffle set up.

Pete Tietjen reports that he's all set for the auction of Sunday, May 17.

The meeting was adjourned at 9:10 p.m.

Respectfully submitted,

Maggi Mahoney, Recording Secretary

THOSE INCREDIBLE SPONGE FILTERS

by Larry Desiano
The Kitsap Aquarian
September 1980

For the longest time I refused to use sponge filters. The first time I saw a sponge filter I couldn't figure how it could work or be of any use. After all, it's smaller than a box filter and there are no parts to collect dirt and throw away. As I got into breeding fish I quickly found that it is difficult filtering fry tanks using conventional filters. The fry get trapped in the filters along with the dirt. I tried removing the covers from the small box filters so that the fry could get out but those types of filters do not work well in fry tanks. There isn't much in a fry tank that can be filtered by floss. Without filtering, a fry tank can foul very quickly. Changing water is a very good alternative but changing water on a fry tank is usually tedious and time-consuming unless you want to change fry along with the water. Looking for alternative, some way along the line I picked up a Jungle Dirt Magnet. I gave it a try but nothing really seemed to happen for a while but suddenly, one day, I noticed that the fry tank with the dirt magnet was crystal clear. Since then, I began using more and more sponge filters and will swear by their results.

Quite simply sponge filters are biological filters. Actually that's not really so simple. Biological filtering is a complex system and a lot of literature has been written on this subject in books, magazines and club publications. What is important to know is that the sponge is not the filter medium but a medium for aerobic bacteria to grown on. The aerobic bacteria is the filtering medium so a sponge filter is actually a living filter. The aerobic bacteria, biologically breaks down very fine particles and more important, converts ammonia and nitrates to non-toxic substances. Because it is a living filter, it takes time to grow and "Mature". This is why a sponge filter does not work immediately. It takes a sponge filter about two weeks to mature. Because of the physical construction of the sponge, a sponge has a lot of internal surface area and can support a very concentrated bacteria culture. If a matured sponge filter is placed in a cloudy 10 gallon tank, the tank will literally become crystal clear within twelve hours...

Another important feature of sponge filters, with respect to fry tanks, is that a mature sponge filter also harbors a good rotifer culture. Rotifers are an excellent first food for fry especially during the first few days when the fry become free swimming. It is a common sight to see many fry grazing over the sponge and picking at what appears to be nothing when in fact they are eating rotifers.

The policy that I have adopted now is to add a new sponge filter to an existing community tank a few weeks before I set up fish to spawn. This way, when the fish spawn and the fry become free swimming, I have a mature sponge filter that I can transfer to the fry tank capable of immediately filtering the tank and loaded with rotifers.

I don't want to mislead any readers into thinking that a sponge filter is an ultimate answer. Changing water is still an important procedure to follow to get the most out of your fish. Sponge filters, in fact, can be quite dangerous to your fishes health if the user is not aware of how to care for the filter. To understand why, it is important to know how this filter works from a mechanical standpoint.

Like any box filter, air bubbles pass up a lift tube. These bubbles do not aerate the water but push water up the lift tube. In order for this to occur, water must be replaced at the bottom of the tube. This is done by water passing through the sponge. As the water passes through the sponge. If the air flow is too strong the lift tube will be filled mostly with air and very little water and no filtering will occur. A smooth even air flow is best. More importantly, the outside of the sponge should not be allowed to clog. This usually happens after flake food is introduced to a fry tank. If a sponge filter looks dirty it doesn't necessarily mean it's not working. A mature filter will look brown, as if it is dirty, but it isn't dirty, it's working. When the flake food is used, particles in the water become too large to pass through the filter. Eventually a slime builds up all around the outside of the filter. If this slime is not cleaned off the filter, a dangerous condition will result. The slime blocks the water flow through the filter. The water contains oxygen which supports the aerobic bacteria. When water flow stops, so does the supply of oxygen. Hence the aerobic bacteria dies and is replaced by an anaerobic bacteria. Anaerobic bacteria works just the opposite way aerobic bacteria works. Instead of reducing ammonia and nitrates, anaerobic bacteria generates ammonia and nitrates which are toxic to your fish. Gone unchecked, a bad sponge can turn into an ammonia bomb. The simple precaution of cleaning your sponge filter eliminates this potential problem.

Cleaning a sponge filter is easier than some people make it. Keeping in mind that we are dealing with a living filter that takes two weeks to establish, the last thing you want to do is sterilize the filter, unless of course, the tank is diseased. A local fish keeper once asked me why her tanks always looked milky white (New tank syndrome) regardless of how much tank cleaning she did. I noticed that whe used sponge filters in each tank. I asked how new her sponge filters were. Almost before I

could finish my question, she was quick to tell me that they were just cleaned and that she cleans them every two weeks (in bleach, wrong!!!). The things that you don't want to use, bleach, hot water, or strong salt solutions. All you want to do is clean the sponge filter like any other sponge, by simply squeezing it a few times in warm water until all the outside dirt is off.

Sponge filters really work extremely well once you understand how to use them and care for them.

Reprinted from the Plecostomus who reprinted it from the ARVAS AQUATIC DIGEST of March 80...Allegheny River Valley Aquarium Society....Laurens & Second Streets...Olean, New York 14760.

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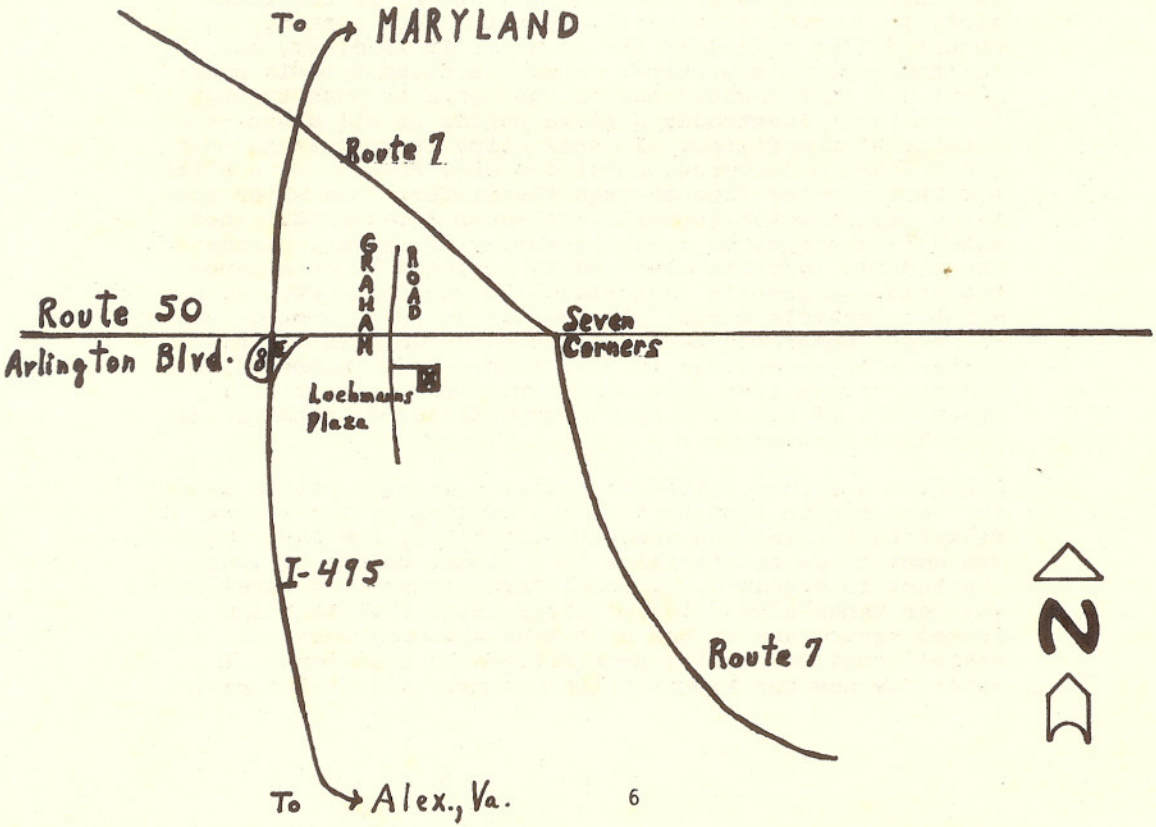
The Potomac Valley Aquarium Society's Annual Fish Show and Auction will be held on May 16-17 at the Jefferson Fire Station which is located just a few minutes from the Capital Beltway (Exit 8E), Seven Corners, or where you might live or work. Its at Graham Road and Route 50, Falls Church, Virginia. Come and invite your friends along....



Comments on
"THOSE INCREDIBLE SPONGE FILTERS"

by Myron Luntz

With the intent of adding some relevant points to the preceeding and most excellent article concerning sponge filters, I offer the following comments. I agree wholeheartedly with the content of Mr. Desiano's discussion. I have long been an advocate of the use of sponge filters in fresh water aquaria, and have at least one in each of my tanks (including my minnow tank which I use to maintain a year round supply of live bait and food for "Ziggy" the family turtle). Mr. Desiano focused on the biological aspects of sponge filter operation and their application in tanks with fry. I merely wish to indicate several "side effects" of their use. I hope to generalize the discussion, at a future date, by surveying the mechanical, Chemical and biological aspects of aquarium filtration.

Firstly, sponge filters are effective in mechanically filtering small particles suspended in the water which, in itself, enhances their ability to maintain a clear tank. Secondly, while the air lift of sponge filters does little to aerate the water (very little air is dissolved in transit upward), nevertheless the turbulence created by bursting bubbles at the top does, indeed, increase the surface area and enhance the efficiency of oxygen absorption. Further, to some degree, carbon dioxide dissolved in the water tends to be mechanically ejected in the uplift. Also, there is the obvious effect of water interchange between bottom and top, thus aiding the distribution of heat throughout the water and eliminating stagnation in gravel pockets which may serve as breeding grounds for harmful bacteria. (Of course these functions are served by most filters, but they bear mentioning.)

The recently available Tetra sponge filters should be included in the discussion in view of several of their unique characteristics. Unlike the Dirt Magnets which sit on the bottom taking up gravel area and tending to trap and store debris beneath them, the Tetra filters are held against the back (or side) glass with the sponge above bottom, thus consuming a minimum of space and tending not to trap dirt. Further, the air lift of the Tetra filter is remarkably efficient, causing a water turnover comparable to that of many small motor filters. -- It is noted that the author is an advocate of the Dirt Magnet as well as the Tetra filter and uses both types. For example, the Tetra filter with its present design, is not suitable for shallow tanks in contrast to the Dirt Magnet which is excellently suited to such applications. Hence, neither is recommended over the other except for specialized use.

One final point, concerning safety, shall be made. Motor filters, by virtue of their design, present certain inherent hazards. The filter syphons can readily lose their prime when knocked aside by large fish, or when the water level drops too low, and resulting heat buildup in the dry filter can be damaging to the motor and even present a fire hazard. Certain self-priming features help eliminate this potential. However, there still exists the possibility of a jammed or burned out motor bearing and its obvious, associated hazards. I recently experienced just such an occurrence with a Dyna flow motor in need of aiol The suggestion is not made here to replace all motor filters with the relatively safe, air powered sponge filters. The latter simply are incapable of handling the load of many of the motor filters and are incapable of serving the diversity functions of motor filters by virtue of filters medium variability. However, as a result of my recent experience with a jammed motor and upon consideration of the sensitivity of filter syphon prime to water level, I do intend to operate only sponge filters during my next vacation. Even in a relatively large tank, under conditions of dim light and no feeding, a couple of sponge filters can maintain excellent water quality with relative safety.

If you haven't tried a sponge filter, I hope you do so soon. I agree with Mr. Desiano's statement that they are, indeed, "incredible".

Reprinted from The Fish Bowl who reprinted it from the ARVAS AQUATIC DIGEST 3-80.

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MAY IS ANNUAL SHOW & AUCTION MONTH

You can't win a prize if you don't bring your fish to the show....

This year's Show 'n Auction promises to be bigger and better than ever.... TROPHIES RIBBONS RAFFLES DOOR PRIZES AND MORE... at a larger location, JEFFERSON FIRE STATION, Route 50 @ Graham Road in FALLS CHURCH, Virginia.

DON'T MISS OUT ON THE FUN AND COMPETITION on Saturday and Sunday, May 16th and 17th

Incidentally, our President, Woody Griffin, entered The White Rose Aquarium Society's Show on April 23-25 and won the Best in Show Trophy (EGGLAYERS), along with four First Place and two Second Place medallions. Tuning up for PVAS, I guess. Congratulations, Woody...I attended the show in York and was SURPRISED to see 200 entries--all Fish--and a throng of people right up 'til closing.

RULES OF THE SHOW

Registration of Entries: 9:00 A.M. until 12:00 noon, Saturday, May 16, 1981. This time is inclusive for all classes.

Judging: 12:30 P.M. until 4:00 P.M. Only judges and designated show committee personnel will be present.

Public Viewing: The show will be open to the public 5:00 - 9:00 P.M., Saturday, May 16, 1981, and beginning at 9:30 A.M., Sunday May 17, 1981. The public is cordially invited to stay and attend the presentation of awards at 12:30 P.M. and the Auction that will begin at 1:00 P.M.

Entry Fees: Single Fish $1.50 (A female may be added, but will not be judged.)
Pairs and Family Entries $2.00
Set Tanks, non-dealer $3.00
Dealer Tanks no charge
Slides and Prints $1.00
Artwork $1.50

RULES OF THE AUCTION

Rules of Registration for Sellers:

1. 15 bags or items limit per person - fish, plants or hobby related items. Anyone may sell - not just P.V.A.S. members

2. Registration will begin at 10:00 A.M. and end promptly at 1:00 P.M.; if you are in line at 1:00 your item will be registered.

3. Auction will start as soon after registration closes as is possible.

4. Each item will be assigned a $1 minimum - unless seller wishes to assign a higher minimum to it. If seller wishes to lower minimum on an item that does not move he may do so during the auction.

5. Bags will be offered as is. Contents may not be split into two or more transactions.

6. No payment will be made to seller on the day of the auction. Payment will be mailed within 10 days.

7. 2/3 of the selling price goes to the seller; 1/3 is retained by P.V.A.S.

8. Bags of fish not sold during the auction must be claimed by the owner (seller) immediately upon conclusion of the auction. Otherwise they will be disposed of at the club's discretion.

(Continued on Page 11)

"A MOUTHBROODER FROM THE NEW WORLD"

Geophagus Steindachneri

by Woody Griffin, PVAS

We have all been so taken with the mouthbrooders from the Rift Lakes of Africa that we seem to overlook some very interesting subgenera of Cichlasoma, the genus Geophagus. This genus contains both substrate spawners and maternal mouthbrooders. The one we are dealing with here is an advanced maternal mouthbrooder.

The "Red-Hump" is found in Colombia, Venezuela, and Peru and grows to a length of 4½ inches for the male and 4 inches for the female. Their breeding colors are a goldish green pattern, with traces of red mixed in. One very interesting observation is that the cephalic hump on the male expands and becomes an intense cherry red when he is in his breeding dance and strut.

I obtained eight juveniles in trade for some Gymnogeophagus Australis fry in the spring of 1980. I maintained them in a 10 gallon aquarium until they reached a length of 2 inches. They were then transferred to a 50 gallon tank containing three species of Apistogrammas, various Corys, and a pair of Australis. They were easily sexable at that time, since the male develops his hump at an early age.

The fish soon became crowded, so I gave two pairs away. I kept the temperature in the tank at 76 degrees and the PH at 7.2. Geophagus in general demand clean, well filtered water, so a weekly partial water change of 30 to 35% was practiced. On a good feeding program of live food and occasional beef heart, the fish soon displayed signs of eminent breeding, with the male flashing and dancing, much as in the case of Mbuna.

The male is aggresive towards the other tank inhabitants, but not enough to cause any damage. I have never actually witnessed their spawning, but have always spotted my females with mouthsfull. They hold their eggs in their mouths differently from Africans, looking like they are smiling or having a flattened effect. What I am trying to say is that their buchal pouches are not as distended as in their cousins from Africa. the female accepted no food and at six days post-spawning I removed her to a 5½ gallon tank filled with with her own water, a heater, and a sponge filter. At sixteen days post-spawning, she released what appeared to be 40 to 45 quarter inch fry. She was very aware of my presence and for two or three days picked up the fry whenever I approached the tank. After this, she only brooded the fry at night. I removed her in ten days and placed her back in the community tank.

The fry were fed newly hatched brine shrimp and Kordon Baby-Fry Diet until they were able to accept the standard fare. At sixty days, I had 38 fry close to an inch long and my female was in an incubation tank again.

In conclusion, I strongly urge you to try some of the neglected jewels from the New World.

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RULES (Cont.)

Rules of Bidding:

1. All persons wishing to participate shall sign in with their name and address and receive a bidding card, whose use will be explained before the auction begins.

2. Bags may be inspected before the auction begins and during intermissions.

3. All bidding raises will be in minimum increments of 50¢ up to $10. After $10 is reached, raises must be $1. (Auctioneer has the right to alter this rule.)

4. Successful bidders will have their items brought to them, at which time they must pay for them. (Club members and old friends may run a tab.)

5. In all instances the decision of the auctioneer is final.

THE EMPEROR TETRA

Pat Mahoney...

Although this native of the Pacific slopes of Colombia was discovered by Eigenmann in 1911, Nematobrycon palmeri did not make its appearence in the United States until 1960. This forty-nine year tardiness was primarily due to the inaccessability of the region in which the Emperor Tetra is found. Fortunately, or so the experts tell us, this peaceful and attractive tetra is easily spawned thereby assuring its availability to the hobbyist.

I picked up a half-dozen young adults from Rosario LaCorte last year during a vist to New Jersey. They were placed in a thirty-gallon community tank with twenty or so assorted tetras. Hearty eaters, they grew more beautiful as they matured.

In January of this year I decided to try and spawn them. I selected a clean 5½ gallon tank, added aged water (7.8 pH) and a Jungle sponge filter. One teaspoon of kosher salt per gallon and a small handfull of Java Moss completed the set up. After three days,two pairs of adult Emperors were placed in the tank and I crossed my fingers. One pair were left in the community tank as that male was runty and looked picked on.

Like all Tetras, the Emperors lay their eggs on bushy plants. The small handfull of Java Moss I used as the spawning medium soon expanded to reduce the free swimming area to practically zero. Only an occasional flash of yellow finnage and lavender stripe assured me that they were still there.

Water temperature was maintained in the 75-78 degree range by the addition of a Supreme 50 watt heater. In my fish room in January this is definitely a necessity. Within forty-eight hours the males began their "trembling" movements. Fins were fully distended with a yellowish hue throughout contrasting with the vivid black line on the leading edge of the dorsal fin and on all three points of the caudal.

The actual spawning was not observed but small opaque eggs soon dotted the Java Moss. This being my first attempt at spawning Emperors, I was not certain if the eggs would survive or be eaten. Live brine shrimp were fed to the adults in hopes they would forego the cavier. I did know that if the eggs were eaten, the female would continue to lay more, a few at a time over the next couple of weeks.

The first seen free-swimmer was discovered by our President. Old Eagle Eye did it again. Using the wire handle of a small net, the Java Moss was carefully pushed back and lo and behold, there were between 40 and 60 tiny Emperors milling about. The parents were then returned to the community tank and the fry given a generous feeding of Kordon Fry Diet.

The size of the fry varied from an eighth of an inch downward. This proved to me that that even with two females spawning, the spawnings were protracted over a week or ten days.

Like Lamprologus brichardi, baby Emperors are exact miniatures of the adults. They are easily sexable at a quarter of an inch since only the males have the three-pronged caudal fin. And like their parents, Emperor fry have very hearty appitites. At sixty days they were taking normal size brine shrimp. Of course it took

two and sometimes three of the fry to handle ONE shrimp, but they got the job done. At sixty days nearly all of the fry were approaching a half inch in length.

I remember Rosario telling me that tank maintenance was the key to raising tetras. Keep the water clean, was his advice. Accordingly, one-third water changes were made weekly. Uneaten food and mulm was carefully siphoned from the bottom of the tank. I feel certain that this is the main reason that I ended up with nearly sixty fry after the required two month period. To the best of my knowledge, I did not lose one fry.

I'll have some bags of the young Emperors available at Spring Auction for those of you who would like to try your hand at spawning Nematobrycon palmeri.

TREASURER'S REPORT - 4/6/81

BANK BALANCE - 3/2/81		$ 1,363.92
PLUS: REVENUES:		
Memberships	$ 34.00	
February Raffle	36.00	
March Raffle	33.00	
Tee Shirt Sales	5.00	
Mini-Auction	144.50	
		252.50
		$ 1,616.42
LESS: EXPENSES (SEE BELOW FOR DETAIL)		198.50
BANK BALANCE 4/6/81		$ 1,417.92

PAYEE/DESCRIPTION	AMOUNT
District Camera Shop - BAP Slide Program	$ 44.85
Top Cat Printing Co. - DeltaTale	27.04
Top Cat Printing Co. - Flyers Spring Show	32.50
Sellers Process - Mini Auction	94.11
TOTAL EXPENSES	$ 198.50

HISTORY OF THE NATIONAL AQUARIUM

Craig Phillips and Carl F. Wall

The National Aquarium is Washington, D. C. has had a long and varied history as in institution, being the oldest established aquarium in the United States, and one of the oldest in the world. Through the course of its existence, from its conception to final establishment in 1873 until the present time, this aquarium has been designated as the National Aquarium in turn. Its present location, since 1932, is in the basement of the Commerce Building on Constitution Avenue between 14th and 15th Streets, Northwest. By tradition it has always been free to the public and open from 9 to 5 each day of the year except Christmas.

Prior to 1871 there was no branch of the United States Government especially charged with the consideration of fishery affairs, although fishery questions of varying importance on both the domestic and international scene had been arising with increasing frequency ever since the achievement of National Independence in 1776.

In 1970 a Federal Fish Commision was created as the result of a movement by a small, newly organized group, the American Fish Culture Association, predecessor to the American Fisheries Society. Volume XXVIII, 1908, Bulletin of the Bureau of Fisheries states that "the American Fish Cultural Association directly influenced Congress to establish the Office of Commissioner of Fish and Fisheries." The concept of a national aquarium came into being in 1871 when Col. Orville E. Babcock, aide to President Grant and Commisioner of Public Buildings, stated in his annual report of that year that he favored an aquarium under a zoological Garden Director at the Washington Monument Grounds.

Dr. Spencer Fullerton Baird, an eminent ichthyologist and staff member of the Smithsonian Institution, was appointed Commisioner of Fish and Fisheries in 1872 to prosecute investigations and inquiries on the subject of fishes. In the winter of 1872 the Commisioner's office was moved from Dr. Baird's private home to the Columbia Armory (later to be known as the Fisheries Building, which was demolished in 1964.) Shortly thereafter, summer offices of the Fish Commision were established at Woods Hole, Massachusetts, and the Commision moved back and forth between Washington and Woods Hole according to the dictates of the seasons. In 1873 the first National Aquarium was established at Woods Hole as a summer project.

The Federal Fish Commision realized early that to support the rising rate of sport and commercial fishing it would be necessary to undertake the artificial propagation of desirable fishes. Shad and Buffalofish were among the first species to be studied for this purpose. In 1878 the District of Columbia holding ponds, known as "Babcock Lakes," were completed in connection with the new Zoological Gardens on the grounds of the present Washington Monument. In addition to the ponds and open aquaria, the zoological section exhibited such animals as monkeys, deer, turtles, an eagle, and several dozen English sparrows, the latter creatures then evidently more of a curiousity than they are today.

In 1881 a hatching station and small aquaria were set up in the basement of Central Station (as the Armory location was called) as interest in the Fish Commission was very high at the time. The drawing down of Babcock Lakes was witnessed by President Chester Arthur and members of the Congress in 1882.

Replacing Dr. Baird (who drew no salary for his position) in 1886 was Marshall McDonald, the first paid Commisioner of Fish and Fisheries. His reported objec- for the year states: "To have Central Station grow as rapidly as possible, to experiment, develop, and illustrate methods of fish culture, scientific inquiry, develop aquaria to do this and observe and determine habitats and life history of fishes.

In October of 1888 an aquarium with 16 feet of running glass was installed in an annex on the west side of Central Station. Another one was built shortly after that and in January 1889, a marine annex, 130 feet long, was added to the south side of the building. Materials used in the new aquarium were glass, wood, slate, and hard and soft rubber. The exhibits operated on the "closed" system, with the water being continuously recirculated. The sea water was brought up the Potomac from Chesapeake Bay by the streamer "Fish Hawk." All the freshwater specimens, with the exception of the trout, were kept in water made slightly brackish with salt to act as a fungicide and to help heal any injuries which they might have acquired in handling and holding.

In 1890 William P. Seal, the first Aquarium Director, wrote Observations on the Aquarium of the U. S. Fish Commision at Central Station. In this work he reported that in his opinion the results of maintaining the Aquarium were so favorable that it should be further developed as an institution of practical observation and experimentation. He also mentioned the need for Government help to foster the growing enthusiasm which could offset the general public's lack of information on the subject of aquatic animals and plants. This could be aided, he felt, by the addition of pond aquaria, so that specimens could be observed both from above and beneath the surface.

In this same year Seal spoke before a meeting of the American Fisheries Society, proposing that the whole of Rock Creek Park Valley be converted into one great National Zoo-Aquarium for the study of terrestrial and aquatic life, under the auspices of the Fish Commision. Meanwhile, Seal continued his research at the present Aquarium, developing, among other things, the forerunner of the aquarium air-stone. His method, an ingenious one, was to force small disks made of sections of porous grapevine into the ends of rubber tubing.

Dr. Seal was replaced as Aquarium Director in 1895, and during that summer a mass mortality occurred among the Aquarium's specimens from over-heating. The Aquarium was renovated and new pumps installed, but the heat problem remained unsolved. In 1902 Director Harron requested a larger Aquarium equipped with a refrigeration system. The specimens at that time were fed a varied diet of clams, oysters, minnows, beef, and beef liver.

HISTORY OF THE NATIONAL AQUARIUM (Continued)

The Fish Commision became part of the Department of Commerce in 1903, later changed its name to the Bureau of Fisheries, but both offices and Aquarium remained in the Fisheries Building until the Commerce Building was constructed in 1932. Babcock Lakes had been finally abandoned in 1905 due to lack of suitable water and spring floods, the fishes being either released or moved to the new National Zoological Gardens. Meanwhile, the Aquarium continued its growth, adding extra tanks of larger size and until 1924 had little trouble other than that of mortality due to summer heat. In that year chlorine was added to the city water supply and many fish died as a result; followed in early 1925 by a total mortality reportedly due to an infestation by the protozoan Ichthyophthirius.

From 1926 to 1932, Director Harron repeatedly secured new specimens for the tanks, only to lose them through heat, chlorine, and diseases.

Finally, in 1932, the new National Aquarium in the Commerce Building was ready, with its refrigeration systems, chlorine removal units, and staff trainred in the use of chemicals for the treatment of fish disease, and has successfully maintained a varied exhibit of aquatic life, both native and exotic, up to the present time.

Although originally administered by the Department of Commerce, the Aquarium in 1945 came under the jurisdiction of the Department of the Interior when the old Bureau of Fisheries was transferred to the U. S. Fish and Wildlife Service.

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I was reminded of the above article when member Wayne Hilburn asked me to remind everyone that our June 8th meeting will be held at the National Aquarium in the Department of Commerce Building, on 14th Street, N. W. between Constitution and Pennsylvania Avenues. The program will start at 8:00 p.m., with the bowl show registration at 7:30 p.m. Mr. Craig Phillips, Director of the National Aquarium, will present an art and slide program entitled "Form & Design in the Underwater World." After our regular meeting, Mr. Phillips and his staff will conduct a guided tour of the National Aquarium. It sounds like a very enjoyable evening, so come out and show our appreciation and interest in the program and the facility.

Appropriately, Mr. Hilburn has also asked that the information on the next two(2) pages be placed in this issue of the Delta Tale.

The Word Is Out!

The proposed federal budget excludes funding for the National Aquarium in Washington. If passed by Congress, we won't have a National Aquarium after October of this year.

I ask all fellow members to write their congressional representatives and senators to express their views on the proposed closing of this historical institution.

Don't be the one that has to tell your children, grandchildren or your neighbors children, why there used to be a National Aquarium right here in Washington. We have an obligation to ourselves and to all the other aquarium enthusiasts in America to make our support known.

Our June meeting is planned to be held at the Commerce Bldg. auditorium in conjunction with a tour of the Aquarium and a presentation by the director, Craig Phillips. As it stands now, we will be among the last people in America to be able to visit the Nation's Aquarium.

Wayne Hilburn

Rep. Sidney R. Yates, Chairman
Subcommittee on Appropriations, Interior
Room B-308 Rayburn House Office Bldg.
Washington, DC 20515; 225-2111

Local Congressional people are;

Sen. McC. Mathias (MD), Rm 358, Russell Senate Office Bldg.
Washington, DC 20510 ; 224-4654

Sen. Paul S. Sarbanes (MD) Rm 2327, Dirksen Senate Office Bldg.
Washington, DC 20510 ; 224-4524

Sen. Harry F. Byrd, Jr. (VA) Rm 245, Russell Senate Office Bldg.
Washington, DC 20510 ; 223-4024

Sen. John W. Warner (VA) Rm 6239, Dirksen Senate Office Bldg.
Washington, DC 20510 ; 224-2023

Rep. Michael D. Barnes (MD-8) Rm 1607, Longworth House Office Bldg.
Washington, DC 20515 ; 225-5341; Montgomery County

Rep. Marjorie S. Holt (MD-4) Rm 2412, Rayburn House Office Bldg.
Washington, DC 20515 ; 225-8090, Anne Arrundel County and part
of Prince Georges County

Rep. Beverly B. Byron (MD-6) Rm 1216, Longworth House Office Bldg.
Washington, DC 20515 ; 225-2721; Howard County

Rep. Stanford Parris (VA) Rm 428,Cannon House Office Bldg.
Washington, DC 20515 ; 225-4376; City of Alexandria, Prince
William County, Fairfax County

Rep. Frank R. Wolfe, (VA) Rm 414, Cannon House Office Bldg.
Washington, DC 20515 ; 225-5136; Arlington County, Fairfax
County, Loudoun County

GEOPHAGUS STEINDACHNERI

by Darrell Holman, PVAS

Since I first got started keeping fish as a hobby, I have gone through the many stages and problems that most hobbiests have gone through. Keeping many different varieties of fish can present many problems, so I eventually narrowed my vast collection down to just a few families of fish. My main interest now is in fishes from the Catfish, Loach, and Cichlid families. This has also been narrowed down to just a few genera from each family. With cichlids, my main interest seems to have narrowed down to the fishes of the genera Geophagus and Gymnogeophagus. From these two genera, I have been very fortunate to own nine different species, of which I was able to spawn seven. Through experience I have found Geophagus Jurupari to be the hardest, and Geophagus Steindachneri the easiest, to spawn.

Geophagus Steindachneri or the "Red-Hump Geophagus," as it is commonly known, has a fairly wide range, being found in the basins of the Rio Cauca, Rio Magdelana and Rio Sinu in Colombia, some tributaries of the Moracaido Basin in Venezuela, and the Peruvian Amazon.

I first was introduced to this species about 10 years ago at one of our local pet stores. The pair which I had obtained were wild and not in very stable condition. The female died shortly after introducing the pair to their new home and the male died about 2 weeks later, so I was not able to spawn the fish.

In June, 1980, I received a young, tank raised pair through one of the local tropical fish wholesalers. This pair proved to be very healthy and in a couple of months started proving how profilic they were.

About 2 months after I received the pair, they were starting to mature. They almost reached their optimum size of 6 inches and were pretty much in their full adult colors. The male had developed a fairly large hump on his head, but it was nothing like some of the wild specimens I had seen. His overall body (was) a pale yellow, with several black blotches throughout the mid-section of his body; his hump was a chocolate brown with a slight trace of red. The female had basically the same color pattern, except the colors were much darker and she was minus the hump on the head.

I soon started setting up a spawning tank for the pair, but when I had returned to get the fish, they had already started spawning in the community tank.

The spawning behavior of this fish is much like that of the Rift Lake Mbuna and Haplochromis of Africa. The spawning site was at one of the rear corners of the tank, where they had completely cleaned off a piece of shale which was covered with a coat of algae. After they had finished preparing the site, the male started dancing in a circular pattern, and quickly stopping to display his colors and fins. The color changes of this fish during spawning was slight, but there was a noticeable change. The male had changed from a pale yellow to a satin cream color, his dark blotches had disappeared, and his chocolate brown hump had changed to a reddish-brown color. The female had changed slightly too; her overall body had darkened to a light brown and the blotches had intensified in color. Both fish had a metallic blue overcast from head to tail, which was only noticeable when the light would strike a certain way. Together the pair started swimming in a circular pattern, which got progressively tighter and tighter with each pass.

This went on for about 10 minutes; then they stopped and started swimming in a tight circle at a slow pace overtop (sic) the piece of rock which they had cleaned. (At) every other pass, the female would lay 4-6 eggs and the male would quickly fertilize them. The female would quickly pick the eggs up into her mouth. This went on for about 45 minutes, until the female could not put any more eggs in her mouth. The eggs were quite large, about 5mm in diameter, and a yellowish-white in color. When spawning was over, the female quickly retreated to the safety of some plants at the opposite end of the tank. Here she stayed for one week, since this was the first spawn she had ever carried and I didn't want to disturb her right away. I then removed her to new quarters, which was a 5½ gallon tank, containing water from the spawning tank. Here she incubated the eggs and the fry for another two weeks. When she finally released the fry, I removed her and returned her to the spawning tank. The fry were quite large and eagerly seeking something to eat. I immediately started feeding them newly-hatched brine shrimp, which they eagerly accepted. I continued feeding brine shrimp for one week. On the second week I started feeding them the wonder food, Kordon Baby Flake, which is absolutely the best commercial food I have found for feeding fry. Their (growth) was fairly rapid on this diet and they seemed to be very healthy. I made frequent water changes to the rearing tank (about every three days) which also helped play a part in their rapid growth. At 60 days, they were approximately 3/4 inch to one inch in length, and looked just like their parents.

Since the first spawn from this pair, I have had 14 more spawns, all averaging about the same number of fry (60-80), and it has been real easy disposing of the fry. Almost every shop in town jumps at the chance of buying Geophagus of any type, and pays fairly good prices.

EDITOR'S NOTE: An excellent article on Geophagus and Gymnogeophagus, with photographs, appeared in the June, 1980 issue of FAMA. Written by the redoubtable Paul V. Loiselle, it also includes a table of the different species, including sizes, availability, and reproductive behavior.

BAP REPORT

NAME	POINTS
Garland Neese	580***
Pat and Maggi Mahoney	415***
Woody Griffin	370***
Gerry Hoffman	365***
Ruth Brewer	305***
Darrell Holman	215**
John Jessup	210**
Vince Edmondson	200**
Ken and June Reece	180**
Sue and Mike Sprague	165**
Kenny Warren	90*
Gene Aldridge	80*
Jim Hajdics	70*
Thompson Family	35
Tom Wright	35
Amy Stirman	10

RECENT POINTS AWARDED

Tom Wright ---------- Pelvicachromis pulcher (15 points)
Haplochromis similis (10 points)

Thompson Family ----- Xiphophorus helleri (10 points) Red Brick

Garland Neese ------- Haplochromis obliquidens (10 points)

Pat and Maggi Mahoney Aphyosemion cognatum (10 points)
Nematobrycon palmeri (25 points)

Gerry Hoffman ------- Brachydanio albolineatus (10 points) Pearl

Woody Griffin ------- Geophagus braziliensis (15 points)
Xenotoca eiseni (10 points)

Jim Hajdics --------- Aphyosemion bivittatum bivittatum (10 points)

BAP Chairman Gerry Hoffman and member Jim Long will present the May Program "Expanding Your Horizons through the Use of Live Foods." Gerry, who also serves as a Program Committee Chairman, advises that the culturing and feeding of live foods for tropical fish, especially for small and difficult fish should prove to be an interesting program. Live culture demonstrations and a slide presentation should enhance their discussion. Bring a small jar or plastic container if you would like some starter cultures.

BOWL SHOW RESULTS AND STANDINGS, APRIL, 1981

CICHLIDS

Angelfish and Discus

1st - Black Lace Veil - Wayne Hilburn

2nd - No entry

3rd - no entry

Non-Rift Lake African

1st - Hemichromis thomasi - Woody Griffin

2nd - No entry

3rd - No entry

Open

1st - Red Empress (Hap.) - Bill Kent

2nd - Orange Chromide - Jim Hajdics

3rd - No entry

EGGLAYERS/LIVEBEARERS

Livebearers, non-Guppy

1st - Sailfin Mollie - Woody Griffin

2nd - Halfbeak - Jim Hajdics

3rd - No entry

Sharks and Loaches

1st - Clown loach - Woody Griffin

2nd - Redfin Shark - Wayne Hilburn

3rd - Clown Loach - Bill Kent

Open

1st - Clown Killie - Jim Hajdics

2nd - Aphyosemion species - Jim Hajdics

3rd - Nothobranchius species - Jim Hajdics

CICHLID STANDINGS

	MONTH	QUARTER	YEAR
Jim Hajdics	4	4	16
Woody Griffin	6	6	12
Wayne Hilburn	6	6	10
Amy Stirman	0	0	8
Garland Neese	0	0	4

EGGLAYER/LIVEBEARER STANDINGS

Jim Hajdics	16	16	30
Mark and Ruth Prendergast	0	0	30
Amy Stirman	0	0	16
Woody Griffin	12	12	12
Wayne Hilburn	4	4	12
Bill Kent	2	2	2

NOVICE CLASS: Flagfish - Wayne Hilburn

MEMBERS CHOICE: Clown Loach - Woody Griffin

JUDGES: EGGLAYERS/LIVEBEARERS, Kenny Warren; CICHLIDS, Pete Tietjen

Rock 10025
228-3300
10.88

Potomac Valley Aquarium Society
P.O. Box 6219
Shirlington Station
Arlington, VA 22206

FIRST CLASS MAIL

1800 453-9500 American Pop

1981 MEETING DATES:

JAN. 12	APRIL 13	JULY 13	OCT. 12
FEB. 9	MAY 11	AUG. 10	NOV. 16
MAR. 9	JUNE 8	SEPT. 14	DEC. 14

Meetings are held at the Coca-Cola Bottling Plant hospitality room, 5401 Seminary Rd., Bailey's Crossroads, Alexandria, Virginia.

Meetings start at 8 p.m. Doors open 7:30 p.m. Bowl Show registration 7:45 p.m., to 8 p.m.