

* DELTA TALE *

JUNE, 1981

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OFFICIAL PUBLICATION OF

potomac valley aquarium society

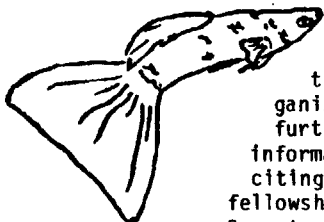
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SHOW RESULTS from PVAS' Annual Show and Auction

Don't Miss PVAS' PICNIC on July 12, 1981 --- Details later

JUNE MEETING at the NATIONAL AQUARIUM, Washington, D.C.



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 should 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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Exchange Editors: Gil & Bonnie Baldwin

P.V.A.S. OFFICERS, 1981

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Vice-Pres.:	Pat Mahoney 534-0006	Rec. Sec. :	Maggi Mahoney 534-0006
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P.V.A.S. 1981 BOARD OF GOVERNORS

John Jessup, Nancy Griffin, Vince Edmondson, Kenny Warren

P.V.A.S. 1981 COMMITTEE HEADS

Auctions :	Pete Tietjen	Bowl Show :	Mark/Ruth Prendergast
BAP :	Gerry Hoffman	Programs :	Gerry Hoffman/ Ruth Brewer
Library :	Nancy Griffin	Ways/Means :	Bill Trout/ Kenny Warren
Membership :	Kay Thompson		

MEMBERS OR NON-MEMBERS HAVING QUESTIONS ABOUT FISH, AQUARIUM KEEPING, AND BREEDING CAN CALL ONE OF 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, May 4, 1981

Meeting was held at the Edmondson's residence and called to order by Woody Griffin at 8:00 p.m. Present were Woody and Nancy Griffin, Chrissy Guiler, Darrell Holman, John Jessup, Pat and Maggi Mahoney, Pete Tietjen, and Vince and Barbara Edmondson.

The board was briefed on the Breeder's Award Program Committee meeting, held on April 26, 1981, and concurred with the clarifications and changes.

A PVAS Picnic was discussed and a date of July 12 agreed upon. A suitable location will be sought.

John Jessup discussed the show plans, and covered items and/or projects remaining to be done. The show equipment will be picked up on Friday, May 8 and stored in the Mahoney's garage until the show. A check will be made to be sure the equipment works, so as to get replacements if needed.

The ads have been placed for the Sunday preceding the show and the Sunday of the auction.

Pete Tietjen reviewed the auction plans and reported he's all set to go.

Meeting was adjourned at 9:27 p.m.

Respectfully submitted,

Maggi Mahoney,
Recording Secretary

THE PRESIDENT'S MESSAGE

To the Membership:

For those of you who haven't already heard, our Spring Show and Auction was one of our best in our twenty-one year existence. In fact, our auction exceeded last year's, so it was our best ever. This was such a meaningful and pleasant experience for me that I don't want to be negative in this note to you, but we must have more help with these events in the future. You, as a Society, cannot expect the "Dirty Dozen" to continue year after year to put these shows on without a mixture of some of our new members and some of our oldtimers who seem to just want to be entertained. I realize that this is a volunteer thing and no one gets paid, but you have no idea how much fun working on our events can be. In the future, I, as your President, am pleading with you to come forward and join in the work, and especially the fun and good feeling gained from a job well done! Enough cajoling; now for the accolades.

No successful event can take place without good direction, so we all owe a special thanks to our two chairmen, John Jessup and Pete Tietjen for their fine coordinating. I don't normally call names, but in this case I will, and if I omit anyone, please let me know.

The folks who helped put this smash weekend together were: Bonnie and Gil Baldwin, Dana Best, Bill Brierly, Vince and Barbara Edmondson, Ken Fisher, Nancy Griffin, Chryss Guiler, Jim Hajdics and his children, Gerry Hoffman, Darrell Holman, Maggi Mahoney, Craig Tingen, Kenny Warren, and Tom and Carol Wright. We owe a special thanks to Ruth Brewer, who was swinging a mop at 10:30 Sunday night, filling in for our ailing clean-up crew chairman. Oops, I almost forgot my son, Mike, and daughter, Suzann, for their help. To all of you who showed fish and put fish in the auction, a special thanks, for this event could not have been such a success without you.

The judges all commented that the fish were very difficult to judge because they were of such high quality. I almost left out the Altlands and Langiones from The White Rose Aquarium Society of York, Pennsylvania, who entered thirty-eight fish between them. Of course, our "Member Emeritus," Gene Aldridge did a fine job judging, and pitched in all he could on Sunday.

This Show has left me with a satiated feeling about our society and I hope it has left the same feeling with you, too. I will look forward to seeing all of you at our picnic in July.

Sincerely,

Woody Griffin, President
PVAS

GARY HAAS AND HIS ALBINO KILLIE

Intro by: Ruth Brewer, PVAS

As a killie fancier, I was delighted to see the 29 killie entries at the Spring Show -- and very pretty they were, too. The next day at the auction, when I saw a pair of albino gardneri bring \$20.00, I wondered how many people in the room knew that the first albino gardneri reported (at least to my knowledge) in the aquarium literature was spawned by a former PVAS member, Gary Haas.

Gary was a member of this club (along with several other clubs, both local and national) back in 1975 or thereabouts. He is unquestionably one of the most interesting and likeable people I ever met. At the time I knew him, he was sharing a house with friends and numerous tanks, drum bowls and miscellaneous oddball containers holding a collection of fish, microworms, assorted cultures, leftover pickles and so on. For a while he was raising earthworms in the yard under an old mattress. When the neighbors complained, he obligingly hauled the mattress off to the dump, but I don't think he ever really understood why anyone would object. Establishment he was not, and I hope he never changes. He also had a couple of old bathtubs out in the yard where he raised a fine crop of water plants, midges, algae, mosquito larvae, and whatever small fish he couldn't find other tank space for. (They didn't stay small long on such a fat cat diet.) He didn't just keep fish -- he observed them as the following article will attest. Gary left the area around 1977 to continue his education. He has been sorely missed by all of us who were privileged to know him.

This article is a reprint of his report to the American Killifish Association on his albino. It was first printed in the Journal of the AKA, Jan/Feb 1978. 1/

A. GARDNERI (ALBINO)

Gary Haas
Blacksburg, Virginia

My very first killifish was a huge male A. gardneri (Akure aquarium strain), bought at my very first fish club auction about two years ago. He was beautiful, and I bid \$2.50 for him, prepared to go as high as \$5 or \$6. I found out later I probably could have got him for 25¢, but he was the first I'd ever seen swimming. Joan Glascock, who had donated the fish, had no extra females, so a few weeks later when my first JAKA came in the mail I called Walt Bott, who lived a hop, skip and jump away, and found that HE kept A. gardneri -- seventy tanks worth. On a subsequent visit, Walt gave me a female (or maybe two) and I learned how to build a spawning mop.

Several months later I had a few dozen A. gardneri, two dozen tanks, and a few species of killifish. I was also developing an interest in obscure small-to-medium cichlids. The offspring of my original gardneri were taking up a lot of valuable tank space, and I began selling them off (the parents had died of various unnatural causes). The last batch of 60 or so eggs had resulted in about 40% "funny-looking" fry -- pale, with eyes that were hard to see. I placed all the fry into a 5 1/2 gallon tank and sold off the last of the parents.

A few weeks later, I noticed three 1/2" fish that stood out from the rest -- they weren't olive colored, they were very light pink. A suspicion dawned in my mind. I isolated the three, remembering all the pale fry I had started with, and because of their runty size. The three 1/2" fish became two adult male A. gardneri; a white fish with pink eyes and red and yellow markings.

I delivered one albino male to Walt and plopped the other male into a 5-gallon tank with two sisters (or half sisters or cousins). The eggs of the other fish of the same generation were also monitored closely. Months passed; no albinos from either set-up.

So I took my albino male to a show, figuring he was the only one around and other people might be intrigued seeing him. On his return to the original tank, he and his ladies proceeded to cover the mop with eggs. Something like 70% fungused (opposed to less than 20% when the trio was left together), but I got three albinos. A month passed, and no more albinos (by this time I could spot an albino in egg form), so I pulled the ladies out. My albino male found the hole in the cover where the air hose came in. So it goes -- back to scratch.

In the meantime, I began to wonder why I got three albinos out of several hundred eggs when probability would predict 0%, 25%, or 50% albino offspring, assuming two XX females, one XX and one Xx, or two Xx females, respectively. Two possibilities seemed probable:

1. The gene weakens the fish and/or the egg in some potentially lethal way. Possible, as my luck in raising albinos has been poor. Eggs fungus more easily, mortality of the fry has been high, and the fry are slow and erratic growers.

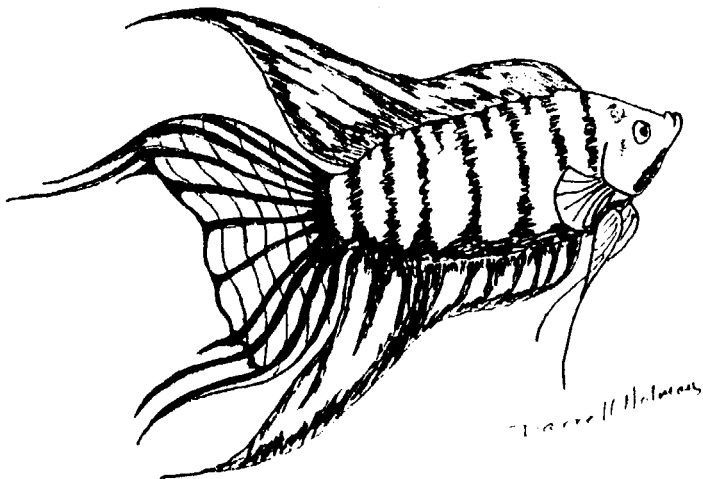
2. One female, an XX, spawned readily with my male; the other, an Xx, was just not turned on by his washed-out colors and would spawn with him only when deprived of other normal colored males. Probably both factors came into play, plus the possibility of reduced fertility in fish afflicted with the gene.

As luck would have it, the good news was that the three albino fry turned into a trio, and the bad news was that I moved and took on a much more demanding life-role (in an area with rotten water and no commercially available live food) just as the fish reached maturity. So six months later I have three adults and three fry, and six weeks worth of uncollected eggs (all albino). The fertility problem seems abated in these fish, though a change to Ringer's solution as an incubation fluid could affect results. The fry do not survive in numbers, but my lack of time and subsequent intervals between water changes (plus a hydra problem) played a great role in this. I have saved half a dozen brothers and sisters of Xx configuration in hopes of checking out the ratio of their albino offspring, but again lack of time has prevented this experiment.

If I can keep the strain going through the next few years, hopefully I can start producing them in enough quantity to make this subtly beautiful fish a common aquarium strain, at least as common as the albino Cynolebias whitei. I already have the fish-room laid out in my mind . . .

1/ The Journal of the AKA is a bi-monthly publication of the American Killifish Association. For information on membership in the AKA, contact

Jerry & Bev Sellers
Membership Chairmen
P.O. Box 4231
Sarasota, FL 33578



THOSE INCREDIBLE SPONGE FILTERS BUILDING THEM

by Larry Desiano

I have gone into great detail on how good I think sponge filters are, how they work, and how to care for them. In this article I will explain how to make your own sponge filters for a cost of about fifty (50) to eighty (80) cents each. The difference in price depends on how much scrap materials you can find.

The basic materials needed are:

- 1) Silicone Rubber (tank sealer)
- 2) 4" foam rubber
- 3) 1/2" PVC tubing
- 4) 3/16" rigid plastic tubing
- 5) air line tubing
- 6) Plate glass (any thickness)
- 7) Tomato paste or juice can (2"--2½" diameter)
- 8) 1/2" steel tube (6"--8" long)
- 9) hammer
- 10) electric drill

The foam rubber can be found at a surplus store or fabric store and can be bought for about \$1.00 per square foot. The foam rubber should be cut into 4" cubes. The easiest way to cut the foam rubber is not necessarily with a razor blade or very sharp knife but with a bread knife. The serrated edges prevent snagging and provide a clean cut.

Next, the 1/2" steel tube is needed to cut a 1/2" hole down the center of each cube. A piece of electrical conduit (EMT) works very well for this purpose. One end of the tube should be sharpened, with a file or grinder, like a pencil point. Since the tube is hollow, this will make an excellent circular cutter. The sharp end of the tube is centered on top of a foam cube and pushed down until it can't be pushed any further. The tube should be held in this position and struck sharply several times with a hammer until it cuts completely through. This operation should be done on a piece of wood. A very clean 1/2" hole should result. If many sponge filters are being made, the tube should be sharpened periodically to insure easy cutting.

A tomato paste or juice can (steel) is used next. The protective rim at one end of the can should be removed, leaving a sharp edge. The sharp edge is used to cut another hole in each foam cube. This second hole is cut around the first hole by rotating the the can from side to side and pushing it gently into the foam cube.

Unlike the first hole, the second hole is only cut three-fourths ($3/4$) of the way into the foam cube. The cylinder of foam rubber made by the can is removed by tearing it out by hand. The remaining product is a 4" cube with a cylindrical chamber at the bottom and a $1/2$ " hole through the top.

The next step is to cut a piece of glass 4" x 4". The thicker the glass the better to give the cube weight. Regular pane glass can be used and the filter can be weighted down by other means. Be sure to sand the edges of the glass to prevent cuts when cleaning the filter. Run a small bead of silicone sealant around one side of the glass square about $3/8$ " from each edge, forming a square perimeter of silicone. Next, cover the bottom of each cube with the glass plate so that the silicone penetrates the foam and the cylindrical chamber is covered by the glass. Let the silicone set overnight.

For each sponge filter being built cut a piece of $1/2$ " PVC tubing to 4" in length. Next drill a hole in the side of each tube $1/2$ " from one end. The hole should be about the size of the air line tubing so that the air line can be inserted into the hole. Cut the air line to about 6" to 8". Finally, cut a piece of $3/16$ " rigid plastic tubing to $3/4$ " and insert half of it into the other end of the air line. This will serve to connect the sponge filter to your air system. The $3/16$ " rigid tube can be bought at most pet shops. This assembly will be the lift tube of the sponge filter.

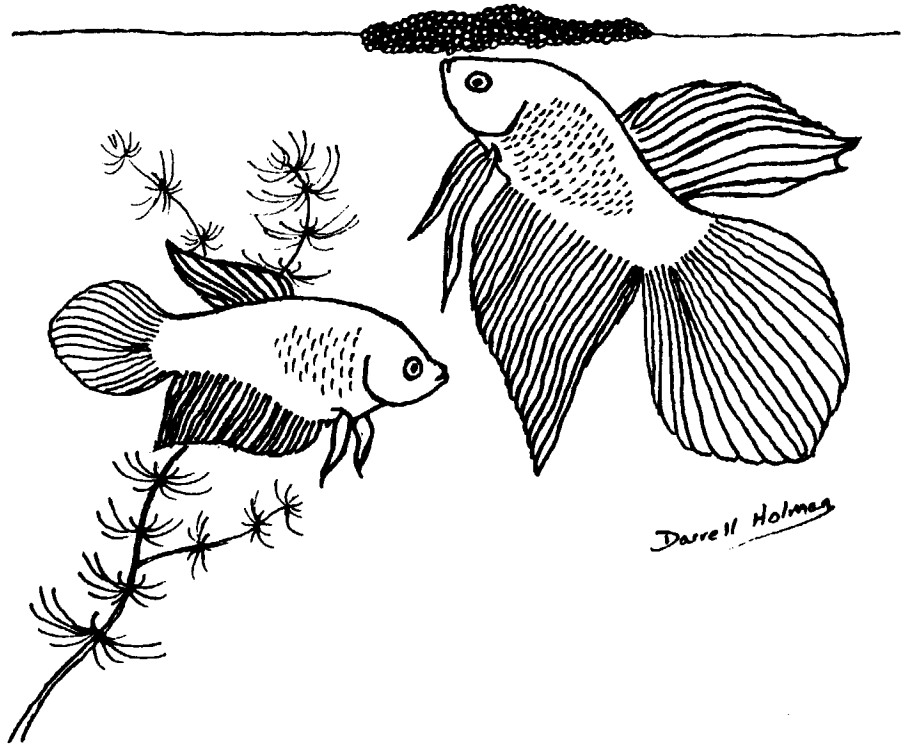
Once the silicone sets, the sponge filter can be assembled and used. With the air line inserted into the hole in the PVC tube, insert the PVC tube into the $1/2$ " hole in the top of the foam rubber with the drilled end of the PVC inserted first. It will become apparent that the height of the lift tube can be adjusted to accommodate shallow as well as deep water. This is no accident. The higher the lift tube the stronger the flow, but in shallow water, such as a fry tank, the height can be lowered. As the water level is increased, so can the lift tube and flow. The precut chamber is also an important feature. The chamber allows maximum flow through the filter when the lift tube is lowered, by not cutting down on the useful amount of foam rubber.

With the filter finally assembled, it can be used immediately. However, it may be difficult at first to get the filter to sink. All of the air must be squeezed out of the sponge. This is not so easy as it sounds. If the glass base is thick, squeezing most of the air out is usually sufficient. If the glass is thin, the filter may sink but may not stay down long. If this becomes a problem, some gravel can be added in the chamber through

the hole in the top of the filter. If gravel is needed, use as coarse a gravel as possible, otherwise, some gravel may be blown out through the lift tube. Once the filter sinks it can be connected to an air supply system and it's now ready to do all the good things a sponge filter can do.

As a final note, remember that it takes two weeks for any sponge filter to really start working.

Reprinted from the ARVAS AQUATIC DIGEST JUNE 1980 Allegheny River Valley Aquarium Society....c/o Olean Public Library ...Laurens and Second streets...Olean, New York 14760....



1981 POTOMAC VALLEY AQUARIUM SOCIETY SPRING SHOW RESULTS

CLASS I: LIVEBEARERS

- a. No Entry
- b. Delta Tail Guppies, Female
 - 1st - Jim Altland, Half-Black
 - 2nd - No Entry
 - 3rd - No Entry
- c. Guppies, all other
 - 1st - Jim Altland, Double Swordtail
 - 2nd - John Mangan, " "
 - 3rd - John Mangan, Swordtail
- d. Mollies
 - 1st - Woody Griffin, Marble Sailfin
 - 2nd - John Jessup, Green Sailfin Lyretail Mollie
 - 3rd - John Mangan and Michelle Mangan, Green Sailfin Lyretail Mollie
- e. Swordtails and Platies
 - 1st - John Jessup, Red Sword
 - 2nd - Jim Altland, Sailfin Variatus
 - 3rd - Michelle Mangan, White Variatus
- f. Other Livebearers
 - 1st - John Mangan, Red-tailed Goodeid
 - 2nd - Ken Fisher, Alfaro cultratus
 - 3rd - Jim Altland, Xiphophorus milleri (Dwarf Livebearer)

BEST IN CLASS: John Jessup, Red Sword

CLASS II: EGGLAYERS (NON-CICHLID)

- a. Catfish, Corydoras
 - 1st - Ken Fisher, Corydoras melanistius
 - 2nd - Jim Altland, Unidentified species
 - 3rd - Gerry Hoffman, Corydoras Punctatus
- b. Catfish, African
 - 1st - Kenny Warren, Synodontis multipunctatus
 - 2nd - Woody Griffin, Synodontis brichardi
 - 3rd - John Jessup, " species
- c. Catfish, all other
 - 1st - Edward Taylor, Ompok bimaculatus
 - 2nd - S. Catlett, Spotted Pimelodella
 - 3rd - S. Catlett, Striped "

d. *Betta splendens*

- 1st - Schnepf, Red Betta
- 2nd - Ken Fisher, Red Betta
- 3rd - Jim Altland, Blue Betta

e. All other Bettas and Anabantoids

- 1st - Ken Fisher, Gold Gourami
- 2nd - S. Catlett, Pearl Gourami
- 3rd - Jim Altland, *Ctenopoma oxyrhynchus*

f. Sharks and Loaches

- 1st - Edward Taylor, Yellow-tailed Botia
- 2nd - Woody Griffin, Clown Loach
- 3rd - Jim Altland, Weather Loach

g. Tetras

- 1st - Gerry Hoffman, Emperor Tetra
- 2nd - John Jessup, Long Finned African
- 3rd - " " , Arnold's Characin

h. Barbs

- 1st - John Jessup, Unidentified Barb
- 2nd - Edward Taylor, *Barbus filamentosus*
- 3rd - Michelle Mangan, Cherry Barb

i. Goldfish and Koi

- 1st - S. Reynolds-Griffin, Chocolate Oranda
- 2nd - Darrell Holman, Carassius Fantail
- 3rd - No Entry

j. Danios, Brachydanios, and Rasboras

- 1st - Edward Taylor, *Rasbora cephalofaearata*
- 2nd - " " , " *elegans*
- 3rd - Gerry Hoffman, " *heteromorpha*

k. Killifish

- 1st - Jim Hajdics, *Pseudoplatys annualatus*
- 2nd - Edward Taylor, *Aphyosemion australe*
- 3rd - Jim Hajdics, *Nothobranchius rachovii*

l. North American Natives

- 1st - Lindenmuth, *Jordanella floridae*
- 2nd - Edward Taylor, *Umbra pygmaea*
- 3rd - Jim Hajdics, *Jordanella floridae*

m. Other Non-Cichlid Egglayers

- 1st - Woody Griffin, *Prochilodus insignis*
- 2nd - John Jessup, Sleeper Goby
- 3rd - Michelle Mangan, Black Ghost Knife

BEST IN CLASS: Schnepf, Red Betta splendens

CLASS III: CICHLIDS

- a. New World Large (over 7" Mature)
 - 1st - Chow, Red Devil
 - 2nd - Griffin, Red Devil
 - 3rd - Mahoney, Green Terror
- b. New World Medium (4-7" Mature)
 - 1st - Vince Edmondson, *Gymnogeophagus australe*
 - 2nd - Darrell Holman, *Cichlasoma septumfasciatum*
 - 3rd - Bialecki, Unidentified species
- c. New World Dwarf (Under 4" Mature)
 - 1st - Ken Fisher, *Apistogramma ramirezi*
 - 2nd - Lindenmuth, Unidentified species
 - 3rd - Jim Hajdics, *Apistogramma ramirezi*
- d. Angelfish
 - 1st - Norma Newsom, Marble Angel
 - 2nd - Gerald and Karen Wagner, Black Angel
 - 3rd - Gerald and Karen Wagner, Blue Veiltail Angel
- e. Riftlake Mbuna
 - 1st - Vince Edmondson, *Labeotropheus trewavasae*
 - 2nd - No Entry
 - 3rd - " "
- f. Riftlake, Non-Mbuna
 - 1st - Griffin, *Cyphotilapia frontosa*
 - 2nd - Edmondson, *Lamprologus leleupi*
 - 3rd - Bill Kent, Flavescent Peacock
- g. Haplochromis
 - 1st - Griffin, *Ovatus*
 - 2nd - Bill Kent, *Moorei*
 - 3rd - Griffin, Red Empress
- h. Non-Riftlake African
 - 1st - Jim Altland, *Hemichromis thomasi*
 - 2nd - Griffin, *Hemichromis thomasi*
 - 3rd - No Entry
- i. Cichlid Pairs
 - 1st - Gerry Hoffman, *Aequidens curviceps*
 - 2nd - Gene Aldridge, *Geophagus steindachneri*
 - 3rd - Holman, *Cichlasoma septumfasciatum*
- j. Other Cichlids
 - No Entries

BEST IN CLASS: Norma Newsom, Marble Angel

CLASS IV: MARINE

a. Fishes

- 1st - Jim Hajdics, P.J. Cardinal
- 2nd - Prendergast, Unid. species
- 3rd - Hajdics, Spotted Hawk

b. Invertebrates

- 1st - Jim Altland, Cherry Shrimp
- 2nd - " " , Unidentified species
- 3rd - " " , " "

BEST IN CLASS: Jim Altland, Cherry Shrimp

CLASS IX: ARTS AND CRAFTS

- 1st - Maggi Mahoney
- 2nd - S.A. Tietjen
- 3rd - Ruth Brewer

CLASS V: FAMILY OF FISH

- 1st - Vince Edmondson, Bristle-Nose
- 2nd - Woody Griffin, Black Tetras
- 3rd - John Mangan, Goodeid

CLASS VI: SET TANKS

- 1st - Long
- 2nd - No Entry
- 3rd - " "

CLASS VII: DEALER TANKS

- 1st - Oakton Pet Center

CLASS VIII: PHOTOGRAPHY

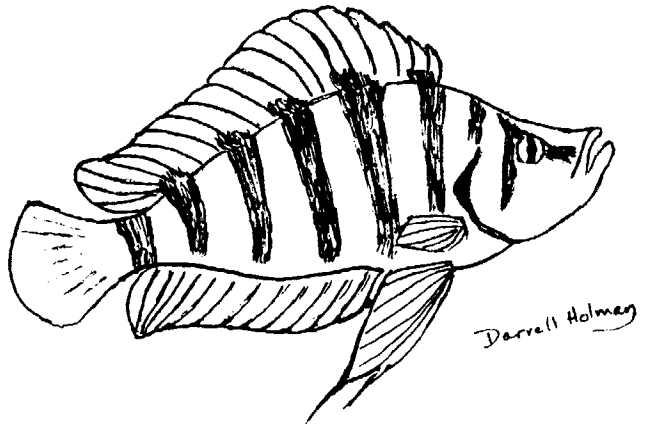
a. Color Slides

- 1st - Gene Aldridge
- 2nd - Pete Tietjen
- 3rd - Edward Taylor

b. Color Prints

- 1st - Art Lempke
- 2nd - " "
- 3rd - " "

c. Black and White Prints ---No Entries



POTOMAC VALLEY AQUARIUM SOCIETY

TREASURER'S REPORT - 5/11/81

BANK BALANCE - 4/6/81 \$ 1,417.92

PLUS: REVENUES:

Membership	\$ 75.00	
March Raffle	26.00	
Tee Shirt Sales	10.00	
Shirt Deposits	45.00	
Miscellaneous Unknown	.50	
		<u>156.50</u>
		\$ 1,574.42

LESS: EXPENSES (SEE BELOW FOR DETAIL) (299.04)

BANK BALANCE: 5/11/81 \$ 1,275.38

<u>PAYEE/DESCRIPTION</u>	<u>AMOUNT</u>
M. Mahoney - Spring Show Poster's	\$ 21.89
G & G Aquatics - 55 gal. set up for Spring Show Raffle	163.59
V. Edmondson - Raffle Tickets Spring/Fall Show & Auction	52.73
Southern Office Supplies - BAP Supplies	6.24
Top Cat Printing - DeltaTale	34.00
V. Edmondson - Postage DeltaTale	3.09
Bank Charge for new check supply.	17.50
Total Paid Out Expenses	\$ 299.04

GEPHAGUS BRASILIENSIS

by Woody Griffin

There has been much written about this beautiful cichlid from South America. It is a very simple cichlid to breed despite the fact that it may reach the length of twelve inches in the aquarium. In spite of their size at maturity, they are a peaceful fish and they start to spawn at three inches for the male and two inches for the female.

The pair bond is formed in much the same way as for most South Americans. I obtained six fry and housed them in a fifty gallon community cichlid tank for several months until a pair took over a small area and started digging pits in the gravel. At this point I removed the pair and placed them in a ten gallon tank with a bare bottom, corner filter, flower pot, and floating plants. The temperature was eighty degrees, with a pH of 7.2.

In a short time the male was tail-wagging and displaying for the female, and the next day their ovipositors were down. I felt spawning was imminent.

The following evening when I got home from work, there was a huge spawn of three hundred to four hundred eggs neatly placed on the bottom of the tank, beneath the flower pot. I was really surprised at such a large clutch of eggs from such a small female. The eggs hatched in forty-eight hours and were actively tended by the female. The male's function at this time seemed to be "standing guard." The next day, the entire spawn was moved to the rear corner of the tank, and this "hide and seek" continued until the seventh day post-spawning, when the fry became free-swimming. At this point, the fry were offered baby brine shrimp which were heartily accepted. They were fed at least three times daily on this diet, and I changed one-fourth of their water daily. Both parents tended the fry from free-swimming until I removed them at three weeks post-spawning, when they showed signs of spawning again.

In three weeks time, the babies had outgrown their ten gallon home, so they were split up into two twenty gallon long tanks with no losses. I had so many fry that I had to practice culling and feeding to my larger fish. What better food for other fish?

At sixty days, I still have a good one hundred to one hundred fifty babies, one inch TL, and if anyone is interested in some fry, please feel free to call me. This is a beautiful fish and an easy fish to keep and spawn.

A PRIMER ON PHOTOGRAPHY FOR AQUARISTS PART II
by T.C.Hodgson
Tank Topics, Greater Akron Aquarium Society
March, 1980

This part of the series of articles on photography will examine the normal types of cameras available to the hobbyist. If you are not familiar with the basic terms of photography review the first article (published in the March 1975 issue of Tank Topics.)

The first type of camera to be examined is our old friend the pinhole. This camera you will remember had some short comings. The exposure time required was quite long, due to the lack of larger f-stops. The long exposure permitted camera shake which creates a soft focus or totally out of focus shots. With a moving subject you might recall we must have a shutter speed of at least 1/125 sec. or electronic flash. Flash bulbs also peak at considerably less than 1/125 second and are totally satisfactory. While we are discussing motion always remember an object travelling toward or directly away from the camera will not need as fast a shutter speed as one travelling across the picture. This curious phenomenon is logical in light of our last discussion. The larger the f/stop number the greater the depth of field. Or, the moving object has to cover a distance to leave the area of equality on front of or behind the point of focus before it can blur. This is not so of the laterally moving object. When it begins to move the picture quality begins to deteriorate. This occurs at once as there is no buffering area of focus caused by depth of field in a horizontal plane. The old pinhole camera just is not suited for our use as it has no shutter speed or focus.

Next let's examine the ordinary box camera. Your camera is a box camera if you cannot select different f/stops, shutter speeds, or focusing distances. Poor results are obtained on a regular basis with a box camera in fish photography. Let's discuss why. First let me say the box camera has a very excellent track record and should not be looked down upon. Most pictures processed today have been taken with one. Most box cameras have a set f/stop, this is usually f/5.6 or f/8. These f/stops are sufficient for providing adequate depth of field for normal snapshots. With a camera of this type the shutter speed is either set electronically by the camera or manually by the photographer. He probably has a choice of settings such as (bright day, cloudy day, or shadows.) These settings regulate the shutter speed. Other box cameras have set shutter speeds usually 1/100 of a second. With these cameras the f/stop normally has some control. The same settings already mentioned may apply. Either of the types mentioned are not satisfactory for in each type the photographer has

given up half of his exposure control capability. Both halves (shutter speed and aperture control) are required to take good fish pictures. The final and most devastating drawback is fixed focus or limited control. Most fixed focus cameras are set for from eight to twelve feet. This is the minimum distance at which the camera will take a picture in focus. At twelve feet of distance a fish doesn't take up much of the frame of a picture unless you're keeping whales! I believe you notice by now that there are a lot of obstacles to overcome with a box camera. Box cameras needless to say are very plentiful, most every home has one or access to one. With close up adapters, so called portrait lenses by the Great Yellow Father from Rochester, it is possible to get an occasional acceptable picture with some of the box cameras. If you're really serious about photographing your fishes there are other less expensive ways to go. Possibly a good used adjustable camera would be better. Your film and processing costs will certainly be lower to secure one good picture, and after a while you'll know you got the picture of those prize spawners when the opportunity arises. Let's not throw away all of our box cameras though, they have their place in the family.

The next general classification of cameras is the adjustable camera. With total exposure control we would have focus capability, aperture control, and shutter speed control. These features will permit us to take good exposures in a fish tank if, and I repeat if, the minimum focus distance is satisfactory. Many adjustable cameras of the medium price range are excellent for general photography, but the minimum focusing distance is set at two to five feet. This limits the camera for closeup work. Most of these cameras have a format size which will include at least all of a ten gallon tank at their minimum focusing distance. If this is the case with your camera a guppy will be so small as to go almost unnoticed in the picture. This camera is good for general picture taking but just can't be easily adapted for fish portraiture. To enable us to get larger fish in the picture we must be able to decrease the minimum focusing distance. This can only be accomplished by changing lenses or moving a lens further away from the film plane in your camera. Anyone who has ever played with a magnifying glass can understand the basics of lens design. The closer the glass is to the object to be viewed the larger it is magnified. Note the distance from the glass to the eye must be altered, or focused, each time the glass to subject distance is changed. This is the same principle we're discussing. The camera lens must be adjusted from film plane to elements or glass, just as the magnifying glass to increase the object size. This can only be done with a camera with interchangeable lenses.

So far we've settled upon a totally adjustable camera with interchangeable lenses. Last but not far from least we must decide on

the final variable. This is focus viewing system. Two methods are employed. The first is the rangefinder. With this system one looks through a wide viewing box aligned with the camera lens to determine the frame of the picture. The lens focus is set with the use of two opposing prisms which split the image in the center of the screen. To focus one simply turns the lens focusing ring until the image is no longer split. This system is well proven for most general photography, but has one draw back. When one tries to take close-up pictures what you see isn't what you get! This problem is called paralax and diverging lines don't meet when the focus distance is close. This can be illustrated by making the index finger and the thumb on both hands into a circle. Now place one circle above the other like a figure eight. The lower circle is the lens; the upper the viewing window. Now look at something close. Hold the circles over the object and move your head to look through each. If your circles are close enough to your subject the view you see through each will differ considerably. The only method know to overcome this paralax problem is the precise measurement from lens to subject for focusing and guessing for framing. This can be done but it is difficult at least to get a fish to pose while you're measuring the exact distance from the lens to him!

Enter the champion! The last and recommended type of camera is the single-lens- reflex. With this system viewing is accomplished with a mirror through the picture taking lens. The mirror swings up when the picture is taken, by opening the shutter exposing the film resting behind the down position of the mirror on the film plane. No matter how far away from the film plane we move the lens, to get a close-up picture, we can still focus through the lens. Many cameras also have internal metering through the lens. This enables the photographer to use filters without having to adjust his exposure with a filter factor. This capability is not vital to fish photography in low light conditions where flash will probably be used. The recommended camera then is some make of single-lens-reflex camera with total manual adjustment capability and interchangeable lenses. This camera must be made by ten different manufacturers. Brand names don't mean a thing. If you decide to run right out and buy a camera there are many things to consider. Price, new or used, features, system, adaptability of other manufacturers' lenses, shutter type, open or stopped down focusing, durability, and many, many more. I could fill this page with things to weigh carefully in deciding upon a system camera. The best approach for club members would be to contact someone who takes an interest in photography and would be willing to help. This is a limited area of photography we are discussing so I won't try to recommend a camera for your needs both within the hobby and out!

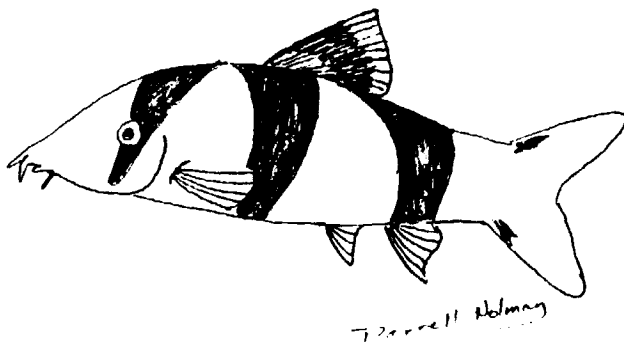
BAP COMMITTEE MEETING

The Breeder's Award Program Committee met on Sunday, April 26, 1981, at Gerry Hoffman's house for the purpose of reviewing the rules and regulations, as the committee is required to do at least once yearly. Present were Ruth Brewer, Ken Fisher, Woody Griffin, Darrell Holman, John Jessup, and Gerry Hoffman. Clarifications and requirement changes will be in effect as of 9/1/81.

- 1) Vince Edmondson will be a Checker for D.C. and Maryland areas.
- 2) Requirements - Points may be gained only once for each species. Color morphs will not be eligible for additional points.
Examples: Points will be awarded only once for *Pseudotropheus zebra* and once for its albino form (a possible total of 20 points).

Points will be awarded once for *Aphyosemion gardneri* (regardless of which "variety") and once for its albino form.

- 3) Difficult Species List, Category #7, now reads:
7a Any species of Whiptail Catfish (*Loricaria*)
7b Any species of Bristle-nose Plecostomus (*Ancistris*)
- 4) Master Breeder Status - a wording change, to read:
Has attained Advanced Breeder Status and a total of 500 breeding points, having spawned at least three (3) species from the categories on the Difficult or Target Species lists to achieve these points.
- 5) After the Breeder's Award Forms have been submitted, there will be a four (4) month limit to hand in written articles or do oral reports. This is inclusive of all outstanding articles due, to properly receive points for fish spawned prior to this written announcement.



BAP REPORT

<u>NAME</u>	<u>POINTS</u>
Garland Neese	580***
Pat and Maggi Mahoney	415***
Gerry Hoffman	405***
Woody Griffin	395***
Ruth Brewer	305***
Vince Edmondson	265**
Darrell Holman	230**
John Jessup	210**
Sue and Mike Sprague	165**
Kenny Warren	90*
Gene Aldridge	80*
Jim Hajdics	70*
Tom Wright	55*
Thompson Family	35
Amy Stirman	10

RECENT POINTS AWARDED

Vince Edmondson -----	Aulonocara species - "Flavescent Peacock" (10 points) Labeotropheus trewavasae (10 points) Ancistris species "Bristle-nose plecostomus" (30 points) Geophagus brasiliensis (15 points)
Gerry Hoffman -----	Cherry Barb (15 points) Nematobrycon palmeri - "Emperor Tetra" (25 points)
Darrell Holman -----	Betta splendens (15 points)
Tom Wright -----	Pseudotropheus elongatus (10 points) Pseudotropheus macrophthalmus (10 points)

BAP Chairman Gerry Hoffman reminds me to turn over to him the articles which are given to me for publication, since the originals should be filed along with the breeding reports, and made a part of the permanent BAP files. It would be very helpful, for you who have copying equipment handy, to send your original reports to Gerry and a copy to me, even if your report is handwritten.

Gerry also notes that the June 8 Membership Meeting will be at the National Aquarium, Washington, D.C., and advises that anyone who needs information should contact member Wayne Hilburn at 354-1463 in Springfield, Virginia.

BOWL SHOW RESULTS, MAY, 1981

CICHLIDS

New World Mouthbrooder

1st - No Entry

2nd - No Entry

3rd - No Entry

Pseudotropheus

1st - *Melanochromis auratus*
Jim Hajdics

2nd - No Entry

3rd - No Entry

Open

1st - *Aequidens curviceps*
Jim Hajdics

2nd - No Entry

3rd - No entry

EGGLAYERS/LIVEBEARERS

Goldfish and Koi

1st - Koi - Wayne Hilburn

2nd - Oranda - Wayne Hilburn

3rd - Koi - Wayne Hilburn

Characins and Tetras

1st - Cardinal Tetra - Jim Hajdics

2nd - Tetra - Gerry Hoffman

3rd - No Entry

Open

1st - Killie (*Gardneri*) - Gerry Hoffman

2nd - *Epiplatys* species - Jim Hajdics

3rd - Blue Gularis - Jim Hajdics

Novice Class: No Entry Recorded

Members Choice: Koi - Wayne Hilburn

Judges: Egglayers/Livebearers and Cichlids: John Jessup and Woody Griffin

I will apologize now for the absent "Standings;" I honestly attempted to unscramble the numbers from the May report, but they didn't jibe. Hopefully, I'll get a clarification soon and give the May and June standings next month.

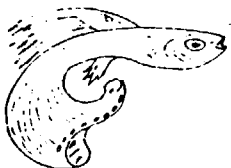
The June categories are as follows:

Cichlids

New World Large
Riftlake Mbuna, except *Pseudotropheus*
Open

Egglayers/Livebearers

Anabantoids
Catfish, *Corydoras*
Open



POTOMAC VALLEY AQUARIUM SOCIETY
PO BOX 6219, SHIRLINGTON STATION
ARLINGTON, VIRGINIA 22206

Date _____ 19 _____

APPLICATION FOR MEMBERSHIP

NAME _____

STREET _____

CITY _____ STATE _____

PHONE _____ ZIP CODE _____

Number of tanks _____

Type of fish _____

Time in hobby _____

Fish you have spawned _____

What you would like
to do in this Club? _____

Which sub-group interests
you? (guppy, cichlid, other) _____

How long do you plan to be in this area? _____

Occupation _____

Membership dues for the Potomac Valley Aquarium Society are:

Family \$10.00
Individual \$ 7.00

Corresponding \$5.00
Junior \$3.00
(under 18)

Completed applications accompanied by your check or money order should
be mailed to P.V.A.S., P.O. Box 6219, Arlington, Virginia 22206.

Please attend our meetings at the Coca-Cola Bottling Plant, 5401
Seminary Road, Alexandria, Virginia at 8:00 P.M.

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

FIRST CLASS MAIL

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 registra-
tion 7:45 p.m., to 8 p.m.

**JUNE, 1981 MEETING IS AT THE NATIONAL AQUARIUM, WASHINGTON, D.C.