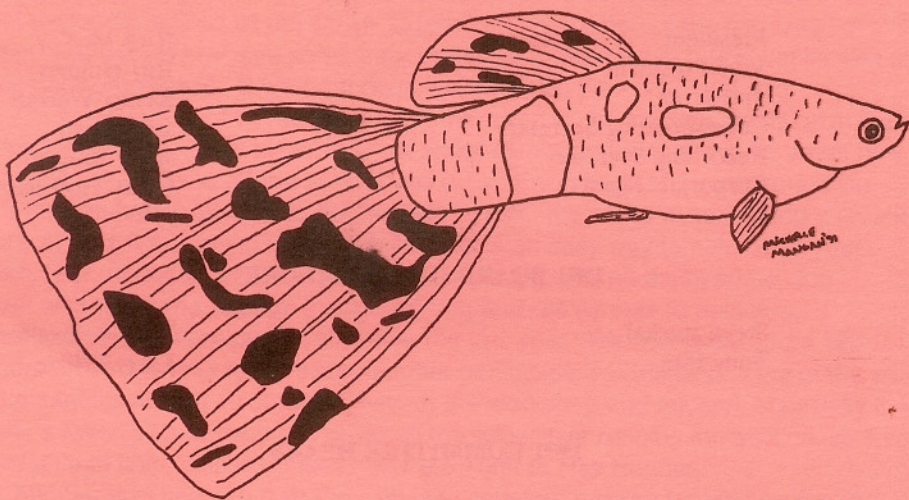


* DELTA TALE *

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potomac valley aquarium society



The Delta Tale is published for the benefit of the membership of the Potomac Valley Aquarium Society, Inc, a non-profit educational and social organization. The Society was founded in 1960 for the purposes of furthering the aquarium hobby by the dissemination of information and advice, and to the promotion of good fellowship among the membership by organized activities and competitions. All correspondence to the Society and to Delta Tale should be directed to Box 6219, Shirlington Station, Arlington, VA 22206. Original articles and artwork appearing in Delta Tale may be reprinted by other non-profit organizations if credit is given to the author, Delta Tale, and PVAS. Two copies of the reprinting publication should be sent to Delta Tale; please include the author's name so that a copy of the publication can be forwarded to him or her. The Society disclaims any responsibility for the content or availability of merchandise or services advertised in the Delta Tale. Customer satisfaction is a matter to be worked out between the advertiser and the buyer. All material for inclusion in Delta Tale must reach the editor by the 10th of the month preceeding the issue month.

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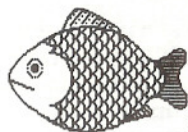
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| Steve Buckel | Beverle Sweitzer |
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| | |
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| Library | Ray Hughes |
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| Programs | |
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Ramblings from Rick

(a message from the president)



Summer is almost over and it is time to shake ourselves out of the doldrums. These summer months are traditionally a slow time for the aquarium hobby, since most people spend more time outdoors, away from their tanks. Now that fall is approaching, it is time to turn our attention back to our fish and the Fall Workshop will do just that!

Plans are now underway for the fifth Fall Workshop and Auction which will be held on Columbus Day weekend, **October 12-13**. We are currently in the process of arranging a first class slate of speakers for Saturday (Oct. 12) and we will hold our semi-annual auction on Sunday (Oct. 13). The location will be the same as last fall's workshop, at the Knights of Pythius Hall in Rockville. More details will follow in a special workshop edition of the Delta Tale which should be out the first week of October. You will also receive a separate pamphlet in the mail in a few weeks with all the pertinent information. It will be a good weekend, so plan now to attend.

On another topic, I've noticed many new faces at our monthly meetings at the the Wood facility. It's good to see interest in our club continue to grow. To these new members, I would like to offer a special welcome. If you have any questions about the club or the fish hobby, please do not hesitate to ask. If you are experiencing a problem with any of your fish, turning to the club for help is an easy way to help solve your problem. For no matter what the problem may be, there is no doubt some club member who has gone through the same thing and will be able to help you.

The club has increased in size over the last year. We now have about 120 members. Now it is time to increase member participation in the club. One of the ways you can participate is to volunteer to help at the workshop and auction, especially the auction. It takes a lot of people to cover all the aspects of running the auction, so if you are available to help, please contact me, Pete Thrift or Ray Hughes.

Another way you can help the club is to consider running for seat on the PVAS board of directors. We hold elections every year, and that time is rapidly approaching. We need to get together a slate of qualified candidates who are interested in running the club next year. If this is something you might be interested in, please see me at the next meeting and I'll put you in touch with the nomination committee.

That's all for now. See you at the workshop!


Rick McKay
President, PVAS

FRUM THE EDITORS DESK

For those of you that are alert- no that isn't a typo on the front cover. This is the "September" issue of Delta Tale and not "Sept/Oct". Before you get all excited- this doesn't mean that we are going back to a monthly publication. I'm not getting THAT much material sent to me, plus I still remember only too well what it was like trying to put out a monthly publication- not me, no sir, no way. As the punchline to an old joke goes "I'm crazy, not stupid". If you don't know the joke ask around, your sure to find someone who does. I've gotten to far off of the subject as it is. The reason this is only the sept. issue is that there will be a special issue coming out in Oct. This special issue (sure to become a rare and valuable item that you'll want to hand down to your grandchildren along with the Civil War Chess Set) will be a combination Workshop/ Auction/Election issue . All of the details for the Workshop aren't going to be worked out soon enough to get them into this issue. There will be a page somewhere in this issue giving what info I have and a pre-registration form. PLEASE send this in as early as possible especially if you plan on coming to the banquet. We really need to know ahead of time how many people to expect. I strongly urge all of you to come. You'll learn a lot AND have lots of fun.

ELECTIONS! PVAS elections are held each November. As of the time I'm writing this I don't know who the nominating committee is- or should that be are? Well I ain't no english teacher so I don't really care. If you ~~do~~ run for President then you can fire me and apoint an editor that knows grammer and spellin and stuff. Boy I'm really rambling this month aren't I? I'll try to stick to the subject. Look at the inside page of the front cover. All of the offices from President down to Recording Secretary plus two Board seats are up for grabs. Think about running. You need no experience, special knowledge, or skill- just looking at some of the names proves that. We need new people to get involved with fresh ideas and enthusiasm. We especially need to get rid of that worthless Recording Secretary. Throw him out and make him live off of his pension (I do get a pension don't I? That's the only reason I took the job.) But seriously- if you want to run for any office please contact ANY current officer and he/she will make sure your name gets to the nominating committee. A slate proposed by the committee will then be printed in the Oct. Delta Tale. Nominations are also accepted from the floor at the Nov. meeting prior to voting.

Were you at the Aug. meeting? If not you missed your chance to see George White in the flesh (luckily someone had an old blanket in their car to throw around him before the police came). Some of our newer members who don't know George were probably starting to think that he was just a creation of my warped imagination. But he is real and back in the U.S. for a short stay before heading off to Italy - I think he's seeking sanctuary in the Vatican. A word of advice to George- take some ear plugs. Remember what happened to Noriega.

Hey! who wrote all of this? I just got back from vacation and there's a bunch of Russian guys in my office saying they're in charge. This has all gotten totaly out of hand. Hey, let go of me. What do you mean I look sick.

Until next ti

 general Yakov Petrovich, kgb

TRADING POST

Ads for the next trading post should be sent to Delta Tale c/o John Mangan, 9770 Oleander Ave, Vienna, VA 22181 by Oct. 15.

For Sale: 48"x18" Perfecto Hoods with 48" light, new in box, call Tom- 301-990-8841, \$50 each.

AQUARIUM MAGAZINE COLLECTIONS. TFFH 1952-1990 many years in binders or cases (missing 7 issues): \$1050. FAMA 1978-1990 in binders (missing 2/78): \$795. Most copies in good to excellent condition. Offers for both considered. NO SINGLE ISSUES. Chris Bergesen (301) 229-6043.

FOR SALE - Complete 50 gallon set-up. Includes wood stand, fluorescent hood or glass top and strip light, UG filter and 70 lbs gravel, Whisper 800 pump, VisiTherm heater. As new cond. Delivery possible. \$180
- Complete 20 gallon high set-up. Similar to above. \$80
- Whisper 800 pump and spare rebuild kit. Excellent cond. \$15
- Breeding pair gold angels. \$35
- 40 lbs Estes chocolate brown gravel. Clean and dry. \$8
- 50 lbs Estes walnut brown gravel. Clean and dry. \$10
PETE THRIFT (703) 971-0594

WHAT'S HAPPENING

- Sept. 9: PVAS Monthly Meeting. Speaker/Program- we've had some really good speakers the past couple of months. If you haven't been coming you've been missing out. Also the usual raffles, door prize, mini auction, bowl show. Bowl Show categories this month-Tetras and Open. See back for map and time.
- Sept. 14: Meeting of the Chesapeake Area Killifish Group. If your interested in Killies this is the group to get into. For more info contact Michael Szesze (301) 326-3448 or see Tony Fitz at the PVAS meeting.
- Sept. 27-29: Greater Pittsburgh Aq. Soc. Show, Auction, Workshop. Contact Nancy Slepinski (412) 431-0941 for more info.
- Oct. 12-13: PVAS Workshop, Banquet, Auction. More details elsewhere in this issue.
- Oct. 21: PVAS Monthly Meeting. All the usual good stuff (see above). Please make note of the date. Oct. is the only month we don't meet on the second monday. The 14th is Columbus Day and John C. Wood is closed. Columbus Day is a real big deal in Fairfax City due to the little known fact that Fairfax City was discovered by Columbus' 4th ship the Stanly (named after Prince Stanly of Albania) after it was blown off course by a typhoon, or at least that's the excuse it's captain used.

Pond "Piranhas" or Demons from the Deep

by George White, PVAS

A recent editorial admonishing us to not be too parochial in our views of what's desirable in the home aquarium struck home. For years, I have been cursing and casting out certain piscivorous insects whenever I caught live food for my adult fish and fry. I was particularly concerned when the food was destined for small fish such as Killifish. However, as often noted, beauty is in the eyes of the beholder. It suddenly dawned on me—thanks to the editorial—that those rapacious insects I deemed monstrous might well appeal to the type of person who loves Piranhas. Especially if he or she has a ready supply of feeder Goodies or bait shop minnows.

The best rogues gallery of allegedly nasty insects (or, should I say "misunderstood" natural pond predators) is in The Pond by Gerald Thompson and Jennifer Coldrey, ISBN number 0-262-20049-X. Presented in glorious large format mug shots are such intriguing "villains" as water scorpions, great diving beetles, dragonfly and damselfly nymphs.

I originally bought a copy of The Pond to be able to avoid collecting any of the dangerous insects, but found its sections on pond plants, crustaceans and other critters to also be fascinating. The outstanding photos include some excellent enlargements of tiny creatures such as Daphnia (giving birth!). The Pond, one of the Oxford Scientific Films series books, provides a well rounded tour of your local pond. This fascinating book can be ordered through your local aquarium shop. A handy list of excellent aquarium stores is provided in the back of this club bulletin. So much for our commercials.

Now, back to our creature feature. Some of these pond "Piranhas" could scare the wits out of a late night TV movie monster. Strange eyes and faces are matched with long threatening legs and pincers. Seen with a magnifying glass, these menacing insects look like something from another planet. One look and you will be leery of sticking your little finger in the water.

Mother Nature does not have a squeamish stomach. These fearsome looking beasts back up their appearances with even nastier behavior. The piscivorous insects earn a living through a variety of devious and brutal tactics. Most lurk among the twigs and pond plants waiting for a naive young fish or another insect to venture too close. Zip, faster than you can say Godzilla, they snare, spear or bite their prey. Many use chemical warfare of the nastiest variety. They inject their prey with a nerve poison that leaves them helpless. Some, such as the larva of the great diving beetle, also pump a chemical into their victims to dissolve their insides. These insects then suck out the resultant soup. (A photo of a great diving beetle larva engaging in this succulent procedure is printed on page 204 of The Pond.)

Blaaah, heck with the editor. I am still going to cast out those creepy insects!

1991 PVAS FALL AUCTION & WORKSHOP

OCT. 12-13

WORKSHOP:

The Workshop will take place Saturday morning and afternoon. The tentative list of speakers includes Mike Trzonkowski of Delaware Aquatic Imports speaking on Aquatic Plants; Sally Boggs on spawning oddball fishes- you name it and Sally can probably tell you how to spawn it; Ginny Eckstein, topic to be announced. It's been awhile since Ginny has been down to visit with us and we all look forward to seeing her again. We are also working on several other possible speakers to round out the day of talks. Cost of the workshop will be \$10 per person.

BANQUET:

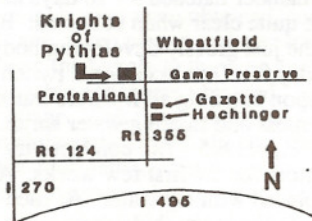
The Banquet will be Saturday evening. A Buffet by the same caterer as we used last year, which everyone seemed to enjoy. The tentative banquet speaker is Ginny Eckstein. The cost will be \$15 per person. If you wish to attend please pre-register. This will help us plan things and you won't have to worry about being turned away if we get too many last minute people.

AUCTION:

The Auction will take place on Sunday. Registration to sell will be from 9-11 AM. The auction will begin at 11:30. If you've been to one of our auctions before you'll know what to expect- a huge amount of fish, plants, misc. equipment, etc. Lots of stuff you won't find anywhere else.

Note- If you are bringing fishes to sell please make sure that they are bagged properly. Ziploc bags are not acceptable. If you don't have fish bags visit your local pet shop, most of them will gladly sell you some bags at a very reasonable price.

All of the above activities will be held at the Knights of Pythias, in Gaithersburg, MD. See map below. More complete information, auction rules etc., will be in the Oct. issue of Delta Tale or you may contact Ray Hughes, 8 Dorothy Ln., Rockville MD (301) 424-3531.



Preregistration Form

Name-
Address-
Phone-

___ persons at \$10 each Workshop

___ persons at \$15 each Banquet

send completed form to:
Ray Hughes, 8 Dorothy Ln.
Rockville, MD, 20851

make checks payable to-
Potomac Valley Aquarium Society

Spawning Report: *Aphyosemion australe* (Rachow),
the Lyretail Killifish

Ron and Jonathan Burch, PVAS

The Lyretail Killifish comes from the Cape Lopez region of Africa, Rachow himself calling it "*Haplochilus* aus Kap Lopez." It inhabits the coastal lowlands from Gabon to the Lower Congo. It has been kept by aquarists since before World War I. The wild type is usually referred to as the "Chocolate Lyretail," and there are so-called "Gold," "Orange" and "Red" aquarium forms as well. The Lyretail is one of the easiest to keep as well as most beautiful of the killifishes. Of our pair, the male is about 2 inches long and his body is a light chocolate color, shading to yellowish on the belly. The pectoral and ventral fins are a bright orange-yellow, and the movements of the pectoral fins reminds one of constantly moving paddles. The body is also adorned with many streaks and dots of red. In the central portion of the body, extending to just behind the insertion of the pectoral fins, is a green patch, and the center of the caudal fin also possesses a greenish coloration. The dorsal and anal fins have white borders that extend to pronounced points. Just inside the borders is a broad band of orange. The female is about the same size as the male but heavier, and her body is light brown and sprinkled with red dots. In contrast to the male, all of her fins are rounded.

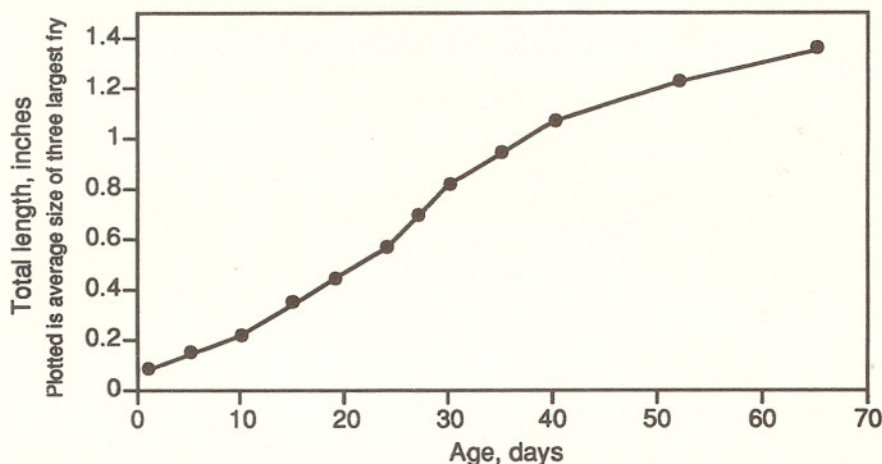
Our fish are kept in a 2.5 gallon aquarium, in water of pH 6.5 - 7.0, with conductivity kept at 100 μ Mho (1/3 tap water and 2/3 reverse osmosis water). Ammonia is kept at 0 ppm. Water is kept at 76° F, and one-half is changed every week, replacing it with similar water that has been soaked in fresh peat for 24-48 hours. The fish are fed twice daily, using living white worms and adult brine shrimp, and frozen blood worms. Occasionally, beef heart or shrimp is fed. The fish eat everything with relish.

For this spawning report, all plants were removed and substituted with a green nylon yarn mop of 60 strands, floating by means of a cork and extending to the bare tank bottom (the outside of the bottom glass is painted dark brown). All spawning activity was observed in the mornings. The male at these times turned a deep brown, almost black, and actively drove the female into the spawning mop. There, he wrapped his dorsal and anal fins around her, and she deposited one egg. We collected eggs each day for 7 days. The daily collection consisted of 3,3,3,3,6,6, and 8 eggs for the week. These were kept in 2 oz of water which was of pH 5.5 - 6.5, and 50 μ Mho conductivity. The incubation vessel contained a thin layer of peat to adsorb pollutants. One-half of the water was replaced every other day. The eggs were stored in the dark in an incubator at constant 78° F. Of the 32 eggs, 2 were lost to fungus. The remainder hatched 9 - 10 days after being laid. Eggs were of about 1 mm diameter, and were quite clear when collected. By day 4, the embryonic eyes could be discerned in the just grossly developing body. By day 6 the embryos were well-developed, and by day 8 to 9 an occasional twitch of an embryo was apparent inside the egg. Immediately upon hatching all fry were transferred to a 2.5 gallon tank containing a large amount of Java moss and floating water sprite. Light was bright and temperature was maintained at 80° F., pH 6.5 - 7.0, conductivity was 50 - 100 μ Mho. A thin layer of peat was kept on the bottom for the first few weeks. About 10 % of water was changed every other day, being replaced with tap water. At each water change, a small amount of peat was removed. Fry were fed twice each day with newly hatched brine shrimp.

At 2 weeks time, all fry were collected; 28 were counted. They were transferred to a 10 gallon tank about half full, and each day 1 gallon of tap water was added to fill it. This tank, too, contained Java moss, water sprite and a thin layer of peat. At this time the fry were also begun on small white worms once per day. Shown in the figure is the growth of

the fry. At 21 days of age, the three to four largest fish began to show the first signs of color band along the dorsal and ventral surfaces of the caudal fin. At this time, their behavior became somewhat more aggressive, but no damage was ever done to smaller tankmates. By 4 weeks of age several of the larger females could be discerned as such - the heavier body shape became apparent. On day 35 the larger males began to develop noticeable caudal points, the "lyretail." On day 60 there were 26 surviving fry, 15 males and 11 females.

Growth of *Aphyosemion australe* Fry



To determine maturity of the fry, which had displayed little to no spawning behavior, 4 female fry at the age of 60 days were placed with the adult male. They all deposited eggs in the spawning mop, but the eggs were of only about half the size as those of the adult female and all were lost to fungus within 24 hours. Replacing the fry with the adult female the next day, viable eggs were obtained, confirming that the male was fertile. The male fry at 60 days of age, when placed with the adult female, attempted the typical spawning behavior of driving the female to the mop and wrapping the dorsal and anal fins around her. However, no viable eggs were obtained. Female fry were again placed with the adult male at 90 days of age. This time, while the deposited eggs were slightly smaller than those of the adult female, nearly all were fertile. Similarly, the largest male fry proved fertile when placed with the adult female, but little to no spawning behavior was noted when they were kept with their sisters, although occasionally the dominant males turned dark brown in the mornings. These fish, instead of driving females, tended instead to staunchly guard a small territory.

Notes on other spawnings. We have found using water from the area that hatch rates are not satisfactory unless we dilute tap water with reverse osmosis water. Generally, we try to use water with conductivity of 50 - 100 μ Mho. When we have used tap water, up to 80 % of eggs fungus prior to hatching. The adults may be kept in tapwater as long as eggs are collected daily and placed in the softer water. We have also found that a thin layer of

peat in the incubation container is crucial. When it is absent, even if water is soft, significant egg losses have occurred. When peat has been present, only perhaps 1 egg in 50 is lost to fungus. We have also observed that if any ammonia is present then eggs are prone to fungus and some fry, upon hatching, remain stuck headfirst in their eggshells and die if not carefully removed. Finally, the pair of Lyretails reported on here were young adults, not quite full grown when our observations were made. The fully grown female now tends to lay up to 12 eggs per day for a few days followed by a few days of rest. She is always kept with the male in the 2.5 gallon tank, but she does require shelter (other spawning mops) to avoid the male, which can be quite vicious at times.

Reference

Scheel, Jorgen J. *Atlas of Killifishes of the Old World*. T.F.H. Publications, Neptune City, NJ, 1990



"So, then. Would that be 'us the people'
or 'we the people'?"

The Delta Tale editorial staff
hard at work on the oct. Special
Edition. Be sure to watch for it
and to attend the Workshop etc.

Spawning the Platy, *Xiphophorus Maculatus*

by Dr. Steven J. Schiff

As I write this poem I find
A fact which I don't really mind
Although it sort of drives me batty
There's no good word to rhyme with "platy".

Despite this fact, it's true, you know—
The platy comes from Mexico
Guatemala, and Honduras
Or so the atlases assure us.

The platy likes its water hard
So dump your peat moss in the yard.
pH should be at seven-nine;
A little salt will do just fine.

The temperature will be just right
At seventy-seven Fahrenheit.
(For those of you whom metric's swayed
That's twenty-five in Centigrade.)

Feed them flake food and brine shrimp
Frozen bloodworms, do not skimp.
Nutritious food is what you need
To get these fish to thrive and breed.

Once a month will fry appear
Or maybe thirteen times a year.
(Actually, you'll see 'em more
Since days 'twixt broods are twenty-four.)

When they're born the young can swim.
A good thing, too, for it's a grim
Fact of life, if you're a platy:
You might be eaten by your daddy.

To help avoid this awful fate
And keep from ending up as bait
The babes can hide both day and night
Beneath some floating water sprite.

Another way to keep the loss
Of fry 'way down, is Java moss
Or any other floating plant
Where young can swim, and parents can't.

This fish is kept with problems few
Maintenance, spawning—easy, too.
Its colors always captivate us:
Xiphophorus maculatus.

Poetry editors note: The above was reprinted from The Reporter,
the publication of the North Jersey Aquarium Society. W.S-S.

If you want to raise healthy fish, you had better learn how to grow healthy bacteria first! It has taken me 2 1/2 years but it is the most valuable information I have learned and the most important I can pass on to you.

If you pick up any book on fish keeping you will see references to biological filtration. Natural water purification is largely dependent upon teams of beneficial bacteria. One group of bacteria starts a process, which is then continued by others. After reading the text, it would appear that all you need to do is fill the aquarium with water, gravel, a few fish and sit back and wait 4 to 6 weeks for the proper bacteria to grow and voila! biological filter. It just doesn't always work that way.

Scientific research has shown that even in natural lakes, essential members of bacterial teams are not always present. This explains, in part, the natural aging of lakes and the too often observed phenomenon of algae proliferation. Lack of critical members of the water purifying micro-organisms is even more prevalent in decorative ponds and aquariums, because they are filled with chlorinated water which is sterile.

The first question is - where do these bacteria come from? The water? No - the air. Now just suppose that there are no bacteria in your air. What then? Wait a little longer? 'Fraid not. If they aren't there - they ain't comin! That has been the lesson I have had to learn.

I have my fish in Silver Spring, Md. Our water is hard, alkaline and full of chlorine. Very seldom do we have chloromine. I had occasion to visit a member who lives in Annapolis recently and the difference in his tanks was absolutely amazing. I would have to say they were "laid back". His mechanical filters had aquatic plants growing in them. At the time I thought that they weren't even filtering because of the water spilling over the uplift instead of through the filter pads, but I now know differently, which I will elaborate on in a minute. The water was clear but the bottoms, which had fine white sand for a substrate, had lovely little "clouds" of bright green algae. I haven't seen this type of algae before or since, but it was pretty and the fish seemed to like it. His fish were happy and healthy and it was a pleasure to look at his collection. He supports his hobby with the sale of the offspring of all kinds of dwarf cichlids, so it must be pretty obvious that they are doing well. I asked how often he changed water (since it was evident that he never changed filters) and he said at least once a quarter.

Lord! my fish would have gone to that big mosquito pond in the sky if I did that. What is the difference? Bacteria. My guess would be that living in Annapolis, he probably has the proper bacteria floating in his windows from off that bay. If I had windows, I wouldn't want to think about what floats in them from off the Beltway.

I put an above ground pond in my yard recently and this is where I got the real practical experience for growing bacteria. The pond holds about 1300 gallons. I have a 100 gallon Brute container for the filter. The water is pumped into the bottom of the container, up through approximately 9 cubic feet of lava rock and overflows into a 3 inch pipe back into the pond. Since I already had my pond fish for several years I couldn't stock slowly and wait for the filter to kick in, I had to jump start it. I put in a product that is a culture of the proper bacteria and tested every day. The ammonia was gone in 8 days and the nitrites in another 10. The water got pea soup green during the nitrite period and then cleared. I was so thrilled (and smug) to be able to see my fish and enjoy them. Two days later we got 3 inches of rain and two days after that - disaster! I looked in the pond and saw dead bugs floating on top. Hey guys! free food! No fish came to the top to eat the bugs. I tested the water. Ammonia high and nitrites out of sight! What happened? The pH of the rain had been 5 or lower and the huge wash of acid water knocked the stuffings out of my newly established biological bed. I have since learned that if the bed had been maybe a month older it most likely would have been able to stand such an onslaught, but at that time it was the difference between 8 or 10 billion bacteria and 8 or 10 centillion bacteria. I put crushed oyster shell - 3 pounds - and did 3 (!!!!) 99% water changes. When the ammonia and nitrites are so very high, not only do the fish suffer terribly, but so do the bacteria. It is just too much for them to tackle. Now when acid water is introduced, the oyster shell will begin to dissolve and neutralize it before it can do damage. It took less time for the filter to re-establish the next time, but it was harder for me, since I didn't have as much faith in my own judgement. I had made a big mistake and wasn't sure if I would make more. I also couldn't feed while the filter was being rejuvenated and that is always upsetting.

I mentioned earlier that my friend had plants clogging up his filter boxes and that it looked like they couldn't be filtering. Nitrates are the 3rd and final product of the biological break down and while most people feel that they are not too important a worry in the fresh water tank, they can cause stress in high amounts and definitely will cause algae to grow. The plants in the filter box were being fed with the nitrates and thereby starving the little creeps that grow on the glass and in the water. I put water hyacinths in my filter and not only do they bloom and look beautiful, but they help to knock down the nitrates.

Hardly a day goes by that we don't benefit from the beneficial use of micro-organisms. The yeast added to make bread, the culture in yogurt and cheese, sauerkraut, and even aged steaks. The proper functioning of bacteria in our own intestine helps us digest food, produce B12 and fight disease.

Establishing and caring for a bacteria bed is a never ending process. Bacteria grow on surfaces. They don't just float around in the water. They need surfaces where the water moves, otherwise they will die from lack of oxygen and be replaced with anaerobic bacteria. If something were to happen and you had to stop your filter for a length of time, it would be better to drain it and let it dry then to let it sit with stagnate water. The bacteria will survive in some numbers from a drying, but to go anaerobic will kill all of them.

When you first begin a biological filter, it helps to seed it with an already established culture. You can get this from an established gravel bed or you can purchase a cultured liquid medium. The dry enzyme products sold to start a tank are potentially dangerous in that they do not contain the micro-organisms for the reductions of toxic ammonia and nitrites, but can even raise the levels of ammonia. After the establishment of your bacterial bed it is important to make periodic additions of fresh culture. This is another factor that the books do not make clear or even discuss.

Once your bacterial bed is up and running it will level itself at the minimum count necessary to maintain the status quo in that given area. We don't want minimum, we want as close to maximum as possible. This will give us a little cushion for the growth of fish, addition of other fish and any unforeseen emergencies.

When a bacterial culture is established and running at it's most efficient minimum count, the addition of one, additional bacteria will cause the entire colony to begin multiplying again. While it is impossible to add just one bacteria, it is important to keep the colony producing and multiplying all of the time so we do periodic - once a week- additions of fresh culture.

During the course of metabolic breakdown, the water will naturally become more and more acid. A change of pH from 7.2 to 6.9 can kill or neutralize as much as 80% of a bacterial colony. So you can see that it is important to do periodic water changes. Since chlorine will also harm the colony, it is necessary to make changes with aged water or at the very least water that has been dechlorinated before it is added to the tank. This is not always convenient, but since a well established bacterial colony will reduce the number of water changes necessary in the long run, it is worth the time and trouble to keep the little guys happy and smiling.

If water is added to a tank and then dechlorinated the movement of the chlorinated water through the undergravel filter or through the mechanical filter could be enough to kill as much as 20% of the bacteria.

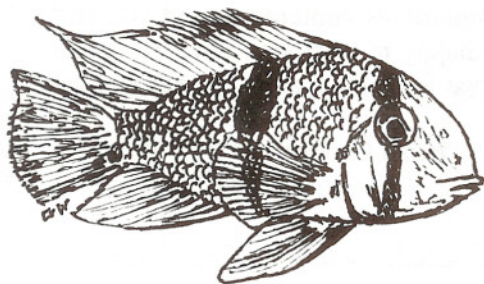
So, as I draw to a close here I would like to suggest that if you have been having problems with algae, dirty tanks, unexplained fish death or illness, you might want to consider your bacterial colony and see if they could use a little help. Get them up and running and I think you will find that they can relieve you of a lot of the work and worry that can be involved in fish care.

The bacterial culture product that I use is Bacta-Pur. I have used some others and they do not work. Bacta-pur is not inexpensive, but then neither is replacing or burying your favorite fish. GOOD GROWING !!!!!

John,
Here's a South American cichlid for your PVAS artwork files. I didn't bother to color it in since you only print in Goodies colors.

cheers,

George



Do You Own a Computer and Modem?

Would you like to be involved in discussions with fish-keeping people (from beginners to experts) all over the world? Would you like to have your aquarium questions answered personally and promptly? Would you like to share your experiences in keeping fish with others?

All it takes is a phone call! Participation is free.

Come join the BBS Aquariums conference. Find out from experts the best ways of keeping your fish, feeding, breeding, and so on. Your participation helps—the more, the merrier!

All you have to do is call a computer Bulletin Board System (BBS) that carries the Aquariums conference, and join that conference. You can even read and answer mail when you aren't hooked up to the BBS, if you want to.

Just use your modem to call one of the following BBSs, and register (most will ask for a nominal contribution; a few are free). You can then type J to join a conference, and pick the Aquariums conference from the list. R to read the mail in the conference, and away you go!

DC-local bulletin boards that carry the Aquariums Conference:

| | | |
|------------------------------|-------|--------------|
| Network East (Rockville, MD) | | 301-942-5616 |
| Virginia Connection | | 703-648-1841 |
| Ed's Home (Columbia, MD) | | 301-854-3076 |

and many others!

If you want to hook up to the Aquariums conference, and you still don't know how to go about it, I'll be happy to help you. Give me a call (I live in Winchester, so it's long distance from DC), and I'll help you get it set up.

Brian Groover 1-703-888-4378
printed June 3, 1991

POTOMAC VALLEY AQUARIUM SOCIETY



POST OFFICE BOX 6219 SHIRLINGTON STATION ARLINGTON, VIRGINIA 22206

APPLICATION FOR MEMBERSHIP

Date: _____ 19 _____

Name: _____

Street: _____ Apartment: _____

City: _____ State: _____ ZIP: _____

Telephone H: _____ W: _____

Occupation: _____

Where did you hear about PVAS/get this application? _____

Number of tanks: _____ Time in hobby _____

What can this club do for you? _____

What do you want to do for the club? _____

Membership dues for the Potomac Valley Aquarium Society are:

Family/Individual: \$12/yr

Corresponding: \$ 9/yr

Junior (under 18): \$ 5/yr

Please send application and check for dues to the address above.

SUPPORTING MARYLAND SHOPS

ANIMAL EXCHANGE
765-A Rockville Pike
Rockville, MD 20852
424-PETS

AQUARIUM CENTER
Randlestown Plaza Center
Liberty Road at Offutt Road
Randlestown, MD
301-521-4529

BROTHERS PETS INC.
13810 Georgia Avenue
Aspen Hill, MD 20906
460-4600

CONGRESSIONAL AQUARIUM
Congressional Plaza
162 Congressional Lane
Rockville, MD 20852
881-6182

FISH FACTORY AQUARIUM
582 North Frederick Avenue
Gaithersburg, MD 20877
881-6182

GLENMONT TROPICALS
Glenmont Shopping Center
12345 Georgia Avenue
Wheaton, MD 20902
949-0344

HOUSE OF TROPICALS
7389F Baltimore-Annapolis Blvd
Glen Burnie, MD 21061
301 761-1113

MARINE CARE SPECIALISTS
15820 Redland Road
Rockville, MD 20855
330-0720

MARYLAND Tropicals Inc.
11229 A New Hampshire Ave
Silver Spring, MD 20904
593-1116

MONTGOMERY TROPICALS
7845-G Airpark Road
Gaithersburg, MD 20879
670-0886

PETLAND
Briggs-Chaney Plaza
13833 Outlet Drive
Silver Spring, MD 20904
762-3505

PETLAND
White Flint Plaza
5268 Nicholson Lane
Kensington, MD 20895
231-5216

PET MART ROCKVILLE
2230 Veirs Mill Road
Rockville, MD 20851
762-3505

RICK'S FISH & PET SUPPLY
1003J West Patrick Street
Frederick City Square
Frederick, MD 21702
301-694-9664 301-831-6866

SHOWCASE AQUARIUM
11248-11250 Triangle Lane
Wheaton, MD 20902
942-6464

TROPICAL FISH WORLD, INC.
Walnut Hill Shopping Center
16529 South Frederick Center
Gaithersburg, MD 20877
921-0000

TROPICAL LAGOON
9439 Georgia Avenue
Silver Spring, MD 20910
585-6562

ROCKVILLE AQUARIUM
611 Hungerford Rd
Rockville, MD 20850
309-0456

SUPPORTING VIRGINIA SHOPS

ANNANDALE PET SHOP

7406 Little River Turnpike
Annandale, VA 22031
256-2400

AQUATIC ENHANCEMENTS, INC.

Aquarium Sales/Leasing/Service
Box 22677
Alexandria, VA 22304
(703) 765-4620

DISCOUNT PET CENTER

Manassas Shopping Center
9028 Mathis Avenue
Manassas, VA 22110
361-7769

BAILEY'S PET CENTER

Leesburg Pike Plaza
35217 South Jefferson Street
Falls Church, VA 22041
931-1400

BEACON MALL PET CENTER

Beacon Mall Center
6776 Richmond Highway
Alexandria, VA 22306
660-6100

NATIONAL PET AND AQUARIUM

Williston Shopping Center
6168 Arlington Blvd
Falls Church, VA 22046
533-7828

OAKTON PET SHOP

Oakton Center
Rt 123 & Hunter Mill Road
Oakton, VA 22124
281-9622

PET MART - TYSONS

8417 Old Courthouse Road
Vienna, VA 22180
281-8181

PETS, ETC - ALEXANDRIA

7688-B Richmond Highway
Alexandria, VA 22306
768-2200

PETS, ETC - CHANTILLY

Sully Plaza
13932 Lee-Jackson Highway
Chantilly, VA 22021
378-2777

PETS, ETC - HERNDON

Stuart Center
462 Eiden Street
Herdon, VA 22171
437-0381

PETS, ETC - STERLING

Hechinger Jamesway Plaza
243-C Harry Flood Byrd Hwy
Sterling, VA 22170
430-9667

PETS-N-THINGS

Pan American Center
3081 Nutley Street
Fairfax, VA 22031
573-4400

SUNSHINE PETS

7395-H Lee Highway
Falls Church, VA 22042
573-6946

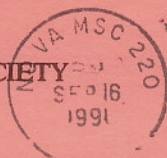
TANKS-A-LOT

Lee Center
6635 Backlick Road
Springfield, VA 22150
703-866-1057

WILSON'S PARROTS & MARINE

Shirley-Edsall Industrial Park
5605-G General Washington Dr
Alexandria, VA 22312
922-7358

POTOMAC VALLEY AQUARIUM SOCIETY
P.O. Box 6219, Shirlington Station
Arlington, Virginia 22206-0219



THE SOCIETY WILL MEET ON THESE MONDAYS IN 1991:

14 JAN
11 FEB
11 MAR

8 APR
13 MAY
10 JUN

8 JUL
12 AUG
9 SEP

21 OCT
11 NOV
9 DEC

Meetings are held at the John J. Wood Facility, Room 7, 3730 Old Lee Highway (Rt 237), Fairfax City, VA. Doors open at 7:30, and the meeting starts at 8PM. ALL ARE WELCOME!

