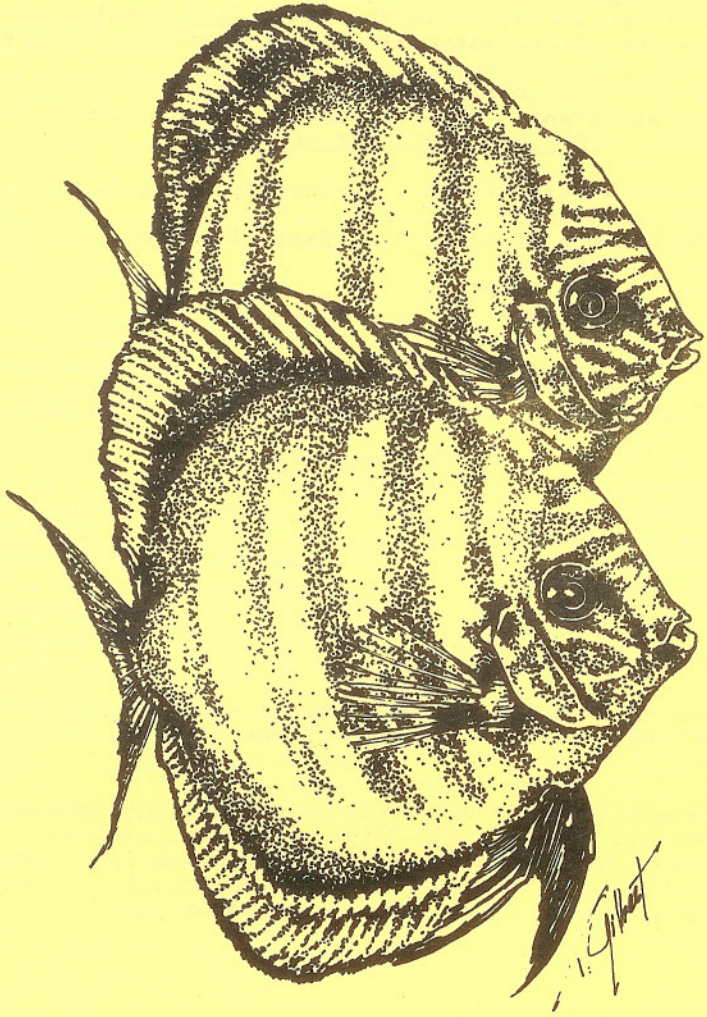
DELTA TALE

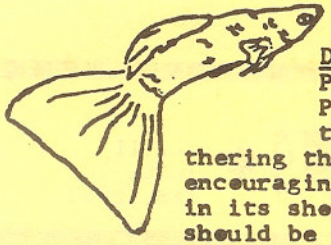
VOL.11
ISSUE 2
FEB.,1980

OFFICIAL PUBLICATION OF

potomac valley aquarium society

50¢





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 disseminationg 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 materials for inclusion in the Delta Tale should reach the editor no later than the first Saturday after the monthly Monday meetings.

EDITOR: Maggi Mahoney
Editorial assistant - Carol Kawecki; Circulation - Bev Fazil

P.V.A.S. OFFICERS FOR 1980

President:	Woody Griffin 949-1290	Corresponding Sec.:	Ken Reece 360-4752
Vice President:	Pete Tietjen 938-2638	Recording Sec:	Maggi Mahoney 534-0006
Treasurer:	Gene Aldridge 931-7426		

1980 BOARD OF GOVERNORS

Joe Paull, John Jessup, Dana S. Best, Ed Smith, Pat Mahoney

COMMITTEE HEADS

Auctions - John Jessup
Breeders Award - Joe Paull
Library - Nancy Reynolds
Membership - Bev Fazil
Mo. Bowl Shows--Darrell Holman, Bill Kent
Programs - Ruth Brewer
Ways/Means - Kenny Warren, Bill Trout

A HELPING HAND:

Need advice or to borrow some knowledge about the care,breeding, feeding or medicating of fish? Call one of these long time P.V.A.S.ers :

Gene Aldridge - 931-7426: Cichlids, photography,general
Darrell Holman - 532-3419: breeding, general
John Jessup - 534-1704: Cichlids, tank care, general
Joe Paull - 591-9245: killies, egglayers,general, breeding
Pete Tietjen - 939-2638 - salt water aquaria

Cover Illustration: Discus - Ted Gilbert

JANUARY, 1980 P.V.A.S. BOARD OF GOVERNORS MEETING

The meeting was held at Pete Tietjen's and was called to order 8 pm. Present were: Pete Tietjen, Woody Griffin, Kenny Warren, Bill Kent, Bill Trout, John Jessup, Darrell Holman, Ken and June Reece, Dana Best, Joe Paull, Maggi and Pat Mahoney, Nancy Reynolds, Ed Smith, Gene Aldridge and Ruth Brewer.

First order of business: Woody has appointed John Jessup to fill the Board of Governors seat vacated when Maggi was elected recording secretary. The board concurred.

The contract for the Coke plant has been signed. The plant is behind in typing, so we do not yet have a copy but all dates are promised -- including the 17th and 18th of May for the spring show and auction and the 3rd Sunday in October for the fall auction.

Woody announced his committee heads for 1980 (see masthead.)

1980 spring show -- a meeting of a show committee will be held January 10 at Gene Aldridge's. Suggested judges will be contacted early this year. P.V.A.S. President and vice president will judge all set tanks this year.

It was suggested and approved by the board that we give trophies as quarterly bowl show awards instead of tanks. It was also decided to have four quarterly awards instead of three, as well as the annual large trophies for the year. John Jessup will donate from his large collection enough small trophies to use for this years quarterly awards.

We will send letters this month to all large hobby publications announcing our roster of officers for the year and the dates of our spring show and auction -- in plenty of time to make their show columns.

Gene will definatly be leaving by June, at which time Dana Best will take over as treasurer. Until that time, she will "understudy" Gene in the job by doing it under his supervision.

Ruth announced the programs for the next four months: January, Gene Aldridge on cichlosoma; February, a program by Joe Paull and Gerry Hoffman covering our breeders' award program and breeding in general. March will be the mini-auction; and in April we will be lucky enough to have Jim Kepler from the Baltimore Aquarium to speak.

A motion was made and passed that we change our share of the "take" on auctions from our present 25% to 1/3 -- beginning with the mini auction in March.

Under new business it was urged that we begin now to look for both a speaker and a location for our fall banquet.

Bill Kent, as a new member,asked that we make more club information available to new members at the time they join. He will submit a list of things he would like to see included in a "welcome to P.V.A.S." package to be sent to new members. It was also suggested that a similar, abbreviated package be put together to hand out to interested prospective members at auctions, shows, etc.

In future Delta Tale will carry the names and telephone numbers of members who can answer questions, help solve problems other members may have. In other clubs this has been called a "fullfillment committee." We will also institute, as part of the meeting, a short question and answer period at general meetings at the end of theprogram, before the raffle.

The meeting was adjourned at 9:30 p.m.

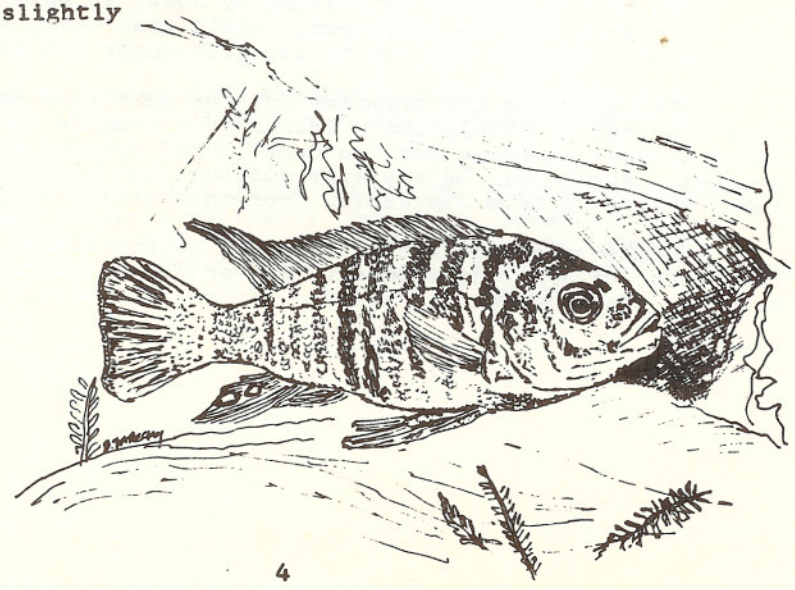
Respectfully submitted,

Margaret E. Mahoney
Recording Secretary

ADDENDUM:

At the January open meeting a motion was made that the Board of Governors be directed to authorize the show committee to make the necessary expenditures for trophies and other items needed for the spring show. The motion was seconded and carried.

We will have trophies in each class this year, instead of ribbons, for first place -- although the number of classes will be cut down slightly



PVAS 1979 Financial Statement

Bank Balance 1/1/79		$ 592.13
1979 Receipts		
Membership	$ 386.00	
Monthly Raffles	136.00	
May Show	2,073.95	
October Auction	1,544.19	
Mini Auction	210.50	
Miscellaneous	6.00	
	$4,356.64	
1979 Expenses		
Delta Tale	$ 394.76	
May Show	1,588.90	
October Dinner Auction	1,389.37	
Programs	48.39	
Mini Auction	177.89	
Bowl Shows	36.40	
Christmas Party	75.00	
Miscellaneous	69.20	
	$3,779.91	
Balance 12/31/79		$1,168.86

E. T. Aldridge Jr

A REWARDING EXPERIENCE

Woody Griffin
P.V.A.S.

I will begin this article by stating that the idea of breeding discus occured to me 5 years ago when I re-entred the hobby of keeping fish after an interval of 10 years.

Keeping healthy discus in their optimum condition and possibly breeding them has always been my goal since I became interested in cichlids, but due to limited space and funds it has always been a dream.

I have read that the only way to maintain discus at their prettiest and in their best condition is to house them in a seperate aquarium of their own. I have had them from time to time and have always had to house them with my angel fish, where they became intimidated and shy.

Last spring I took the plunge into discus again,this time I bought a mated pair of brown discus. With their arrival in my home they took a place of honor in a 29 gallon tank, complete with their spawning flower pot for their old home, which they have chosen to ignore to this day.

I set up their 29 tank with an outside power filter and an inside box filter with peat as a filter medium to soften the water and to reduce the pH. I opted to use a natural set-up in lieu of a sterile one. I used an imitation Amazon sword plant and a piece of slate as added spawning inducements. I change water at a rate of thirty or forty percent a week, directly from the tap,using chlorine remover,with no sign of distress. The fish have been kept in this set up at a pH of 6.6 to 6.8 and water hardness of 70 to 90 ppm. Their colors have grown more brilliant with feedings of various live foods and plankton and they seem very content. They remained very beautiful and very content for 8 weeks until I came home from work one evening in July, to be greeted with a very large spawn on the slate. Much to my disappointment and dismay when I arrived home the following evening the spawn had been eaten and this process continued for 8 suceeding spawns.

On the evening of November 4, 1979, I came home from work while they were spawning. They knew me very well by this time and my observation did not bother them all all. I sensed this might be the BIG ONE, because the secretions on their sides were more evident than before and they were both showing parental care instead of just the female.

The following morning the few fungused eggs had been carefully removed and I left for work with my fingers crossed. The eggs hatched in 42 hours and were moved from the bottom of the slate to the top by the mama, who was by now becoming very jealous of papa. This problem was solved on the fourth day by mama moving half of the spawn behind the slate and guarding them, while papa took care of the others on the front.

I fed only flake food and beef heart at this time for fear that anything moving might prompt them to eat the alevins.

On the sixth day after spawning I came home to both parents engulfed in fry on both of their sides. In my opinion thisis one of the most exciting sights in this fascinating hobby of ours!

The fry became free swimming prematurely because my heater stuck and the water was 92 degrees. The fish do not seem to mind high temperatures all all, although I did gradually reduce the temperature to 86 degrees. Things went smoothly with the parents taking turns nursing the fry on their sides. The growth rate is rapid with the fry doubling in size per day the first week of free swimming.

There is one trait that these fish have that is amazing to observe. When one parent grows tired of caring for the babies, he or she will accelerate away from them and leave them suspended in mid-water as the other parent swims in to take over. It reminds me of a magician yanking the tablecloth out from under a set of dishes and leaving the dishes in place.

On the fourth day of free swimming I supplemented the parents secretion with live baby brine shrimp. This was readily accepted as evidenced by the fry's pink, bulging bellies.

On the sixth day of free swimming there were still about 100 fry in evidence. It was at this time that my troubles began. I started to lose fry at the rate of three to six a day. There are many theories as to why this happened, which are too lengthy and involved to go into at this writing. Everything was tried to stop this attrition and I had much help and advice from a prominent angel fish and discus breeder in Northern Virginia. Nothing seemed to help.

Feeling helpless and in a state of panic on the sixteenth day of free swimming I siphoned the fry from their parents sides. They were placed in a five gallon tnak in 50 percent of their own water and 50 percent dechlorinated water directly from the tap. Filtration was provided by a sponge filter and the temperature was raised to 88 degrees.

I continued their diet of live baby brine four times daily and changed one gallon of water per day. After four days I lost no more fry.

I moved them again at thirty days of age to a ten gallon bare tank and they readily accepted beef heart, brine shrimp, crushed flakes and micro-plankton. They particularly relished micro-plankton. At sixty days I have 22 very healthy fry with a body size slightly larger than a five cent piece.

This has by far been my most fulfilling experience in this hobby which I seem to enjoy more every day.

BREEDING THE JULIDOCHROMIS MARLIERI

By: Vince Edmondson, PVAS

"Hey, I see some babies in this tank!" I ran quite excitedly to where my nephew, Stephen, visiting my fish room (half of my domicile) was prone on the floor, trying to count the Julidochromis marlieri fry in the rear of a twenty gallon long tank. I hurriedly moved him aside so as to see for myself, and realized instantly that his eleven year old eyes were a lot better than mine, with or without the benefit of glasses. Slowly, but surely, I was finally able to count 11 of the smallest fish I've ever seen. But for their continued darting from under and behind some oyster shells, I might not yet have been aware of their spawning. The Julidochromis pair was placed in their tank, along with a trio of Lamprologus brichardi about three months ago, when it became obvious that neither genus was comfortable in a fifty-five gallon tank of hyperactive mbunas. The brichardi "staked out" the right side of the tank and, because of their dominance, the marlieri stayed at the left rear portion of the tank, swimming sideways very often so that the more aggressive brichardi could be watched. The three inch plus (TL) male and his two inch mate moved about freely, especially at feeding time, and occasionally would come to the surface when frozen brine was served.

Most of the time, however, they never wandered far from the oyster shells and a piece of red shale at the rear of the tank. After realizing that the fry might constitute a change in the brichardis' diet, I moved the brichardi "upstairs" to twenty-nine gallon tank inhabited by Pseudotropheus williamsi and Haplochromis electra, among others, to protect the 11 fry, which at this time have not been measured.

Having spawned red zebras, pindani, lanisticola, and auroras, all in the last six months, has taught me quite a bit with regard to the spawning rituals of mbunas. For those who want my advice for success with endemic substrate spawners, I say "Forget 'em -- just invite your nephew from Baltimore over for the first time. If you've got babies, he'll find 'em."

"HOW EASY IS THE HOBBY"

BY: GAYLE PANFIL
MEMBER: THE YOUNGSTOWN AREA
TROPICAL FISH SOCIETY

Did you ever stop to think about what fish keeping actually involves? Most of my friends not being fish keepers, come into the house, admire the fish and make the usual remark.

"Gee, those fish are really pretty, I should start an aquarium. It seems alot easier than taking care of my cat. (Or dog, depending on what pet that person has.)

I have often wondered what they'd say if instead of making the same old remark of, "We like them," or "Yes, they are pretty easy to take care of, " told them what the hobby really consisted of.

My one girlfriend has seen some of the things that are a part of the hobby. Being a devoted cat keeper, she had the same view as everyone else. The only experience she has had with fish was with her goldfish. This was a very sad experienc for the goldfish as one ended up friend, (putting hot water into the tank after changing the water), and the other one died from an overdose of chlorine.

Her views started to change when she came over one night while my husband was siphoning a gallon of water out of the tanks, This is nothing to the everyday hobbyist but when a person walks into someones home and sees twelve gallon jargs of dirty water sitting on the floor, naturally they wonder what it's all about.

"Why all the bottles?" Good question, after all, how many people have that sitting in front of their back door?

I tried to explain to her the process of siphoning off water, but being an unbeliever she had to see this for herself. Walking into the fish room she encountered my husband, siphon hose in mouth. No more questions.

Her next experience involved the "beef heart" escapade. This is a lot of fun for all hobbyists. She happened to walk in while the food grinder, cut up beef, smelts, and of course, the green vegetables were all over the table. There stood my husband, grinding beef heart in the meat grinder. Now, as we all know this is fantastic for the fish, but is not a pretty sight when you're putting it together. I could have told her it was a gourmet meal, but i couldn't do that while she stood their with a greenish tinge to her face.

I think the final blow came when she came over one morning for coffee and reached into the refrigerator to see if there were any goodies. Lo and behold, she came out with a container of glass worms. I've noticed lately she just asks if there any goodies to eat.

She's decided fish keeping isn't as easy as she thought it was. I've noticed she hasn't mentioned starting a tank. WONDER WHY?????????

BREEDING TETRAS the EASY WAY

by Stephanie Turcotte, Fins 'n Tales
Kitchener-Waterloo Aquarium Society
Waterloo, Ontario, April, 1978

All too often the beautiful tetras which decorate our community tanks are considered too difficult for the average hobbyist to breed. Certainly this is true of some species, but many others present no special problems. One of the real achievements of being a successful hobbyist is maintaining fish in such a natural manner that they reproduce in the aquarium. Many aquarists would be greatly surprised to learn that a good deal of spawning activity is taking place in their community tanks. A daily inspection of each aquarium resident might produce unexpected discoveries. In the case of the tetras, females are normally a bit heavier and more rounded than males. If a female is heavy one day and slender the next, chances are that an unnoticed spawning has occurred. The eggs were likely immediately eaten by the tank inhabitants. There is little chance that any had escaped to develop into young fish. The answer to this is a special tank set up for the exclusive purpose of breeding tetras.

Spawning the head and tail light tetras (HEMIGRAMMUS OCELLIFER) is a simple task. First prepare an aquarium of 5-10 gallons. Use a fine dark substrate material to cover the bottom of the tank. A variance in Ph between 6.5 to 7.0 is acceptable, and water hardness may range as high as 90ppm. It is always advisable to age the water several days before putting the fish into the water. Fill the aquarium with fine-leafed plants such as Myriophyllum, Cabomba and Ceratophyllum (hornwort). An aquarium light is necessary, however too much strong light may kill development of the eggs. Filtration should be either of the substrate (under gravel) variety or a sponge filter. Both types are safe to use since they cannot entrap young fish. After setting the temperature at 76 degrees F (24 degrees C) the fish may be added.

Although some authorities feel it is advisable to use two mates for each female, it is certainly not a necessity. Frequently, the extra male may simply act as an egg-eater. Select a pair of fish compatible in size and maturity. Many species of tetras are difficult to sex, but the head and tail light makes it easy. Not only are the males slimmer and usually smaller, but they are more transparent. The swim bladder of the male is visible and actually reflects a good deal of light. This gives the male the appearance of being more colourful.

Place the fish in your spawning tank. Gradually begin to raise the temperature until a reading of 82 degrees F (28 degrees C) is reached. This stimulates the fish to spawn. Assuming the fish have been properly conditioned, they should begin mating activities within a few hours. The male will chase the female into a clump of plants enticing her with quivering fins. When the female is ready, she positions herself along-side of the male. In a perfectly timed encounter, the bodies of the two fish are pressed together as they turn and twist in an S-shaped maneuver. Eggs are released in a somewhat explosive fashion and are scattered throughout the plants. As many as ten semi-adhesive eggs are expelled at a time and while many will stick to the plants, others will drop to the bottom of the tank. Spawning takes place for up to two hours and over 200 eggs may result. It is essential that the adults be removed as soon as they have completed spawning, otherwise they will more than likely eat every egg that they can find.

Raising the fry is the final step in a successful venture into tetra breeding. Assuming the parents have been removed, the eggs will hatch in 24 to 36 hours. After 3 to 5 days the fry will be free-swimming and can be fed the finest foods. Strained eggyolk, pulverized dry food, infusoria and micro-worms are excellent first foods. Brine shrimp naupulai can be fed after 3 or 4 days of growth. The fish grow rapidly and they will reach 2/3 of their adult size within 6 months. Changing the water regularly will greatly increase their growth and ensure good health.

From a single pair of tetras, the hobbyist can expect to raise at least 50 to 100 individuals. If these are placed in a large, well-planted tank, the fish can be viewed and maintained as they live in the wild. A large school of glimmering tetras moving in perfect unison is a sight never to be forgotten.

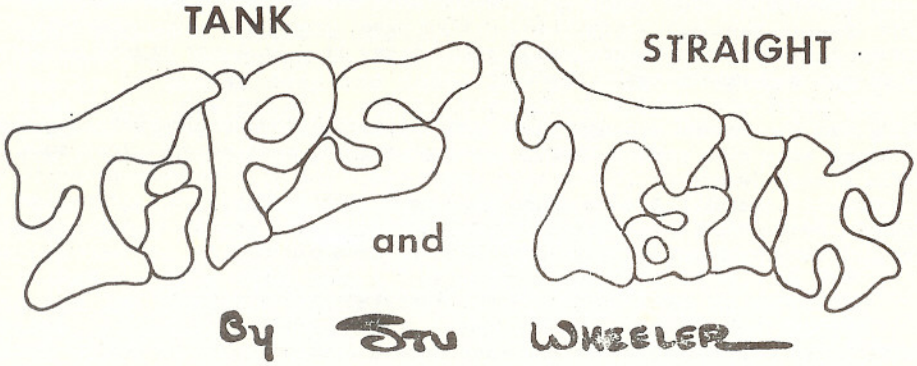
MY LOVE AFFAIR WITH A "BLACK GHOST" KNIFE

by Robert Channen, Fins 'n Tales
Kitchener-Waterloo Aquarium Society
Waterloo, Ontario, April, 1978

It all began quite innocently five years ago when I purchased my first black ghost knife; a perfect, strikingly beautiful specimen about 7 inches long, black as night and soft as silky velvet. Unlike most nocturnal fish which hide and sleep all day, he became unusually active and spirited every time I came near the fish table. Within days he was eating food from my fingers. Within a week or two, when I placed my open hand in the water, palm up, he had learned to lay across my hand on his back no less, while I stuffed white worms into his eager mouth (these fish do surface feed upside down). Soon we were playing together regularly. I would tease and push him around like you would a dog, and he would chase nibble and bunt at my fingers. We took turns being the aggressor; he never tired and was constantly there for more. With his instant reverse gear, his clever actions were something to behold. He had no fear of me; I could lift him clear of the water in my hand and he never panicked. Certainly he was a fish with superior fish intelligence, and I'm sure that he had much more potential. I was amazed to find that he recognized me as his playmate or whatever since he made no effort to move when my wife was working around by herself.

However, like all love affairs, some can have abrupt endings. Ours came when I passed his aquarium while working in the basement. Apparently I had left the aquarium top slightly open, and in his usual excitement at seeing me, he was up, over and out. I found his moist but dead body on the floor an hour later. I must admit it was the only time I have ever cried over the death of a fish. I still feel sad and guilty to this day. I had allowed my unusual, fun-loving and trusting pet to die by my own carelessness.

This true fish story has no happy ending although it has a good lesson. I have always owned black ghosts ever since. Most have been good community aquarium fish although I sometimes wonder what disturbance is caused during the night by their roamings. They are easy to keep although I find them definitely prone to bacterial attack if the water is not clean, always resulting in death. All but one have quickly learned to eat from my hand. Unfortunately I have never had the time to teach them anything further. Of course, oscars, discus, bettas and angels will all eat from your hand, but none will literally play with you the way that my original black ghost did with me. Someday when time permits, I hope to take the time to again test the potential of these unusually intelligent and playful fish.



Do you know how to provide artificial respiration for your fish? Just as we take up oxygen and give off carbon dioxide by passing air over the lung membranes, a fish takes up oxygen and gives off metabolic wastes by passing water over the gill membranes, a fish takes up oxygen and gives off metabolic wastes by passing water over the gill membranes. And just as a person who has stopped breathing may sometimes be kept alive or 'brought back to life' by keeping the air flowing through his lungs, a fish which has escaped his tank and is found half-dried on the floor may often be 'brought back to life' by providing a water flow over the gill membranes until the fish is able to take up respiration on his own.

The most commonly used method is 'walking' the fish (and as a matter of fact, in the case of some large marine fish and mammals, the procedure is for one or two people to actually walk around and through a shallow pool holding the fish upright in the water and allowing the water to flow into the mouth and out the gills). In the case of the average sized aquarium fish (say 3" to 12" or so) this simply means holding the fish gently upright with the hand over the back and moving the fish either continuously forward in a 'figure 8' motion or an easy forward and backward motion. Nothing violent or fast - gentle and smooth movements, pausing every now and then to see if the fish has begun respiration on his own. If so, wait a bit to see if he continues on his own - do not block his own breathing rhythm by resuming the 'walking' too soon.

The method I prefer is to use a large glass or plastic syringe with a blunt tip small enough to fit into the fish's mouth (even something like a Halvin baby brine shrimp extractor works fine). Put the tip of the syringe into the fish's mouth and gently pump a small amount of water into the fish's mouth. Begin a fairly rapid and rhythmic pumping action. It is very easy to pump too much water too hard - so keep it gentle. You will see the gill covers flutter as each surge of water passes through the gill. Again, pause every once in a while to see if the fish has begun to revive.

If, for some reason, you can't attend to the fish personally (you may all 200 of your Bala sharks played 'follow-the-leader' .... out of the tank?) try to prop the fish upright near an airstone or power filter output hopefully so that some of the moving water will circulate through the mouth and out the gills.

I've also read a recommendation that larger fish be held head up under a running faucet, flowing a large quantity of water over the gills. I can't say that it sounds like an especially good idea - I've never tried it - but conceivably you could be in a situation where you'd need to try it. At least try to give the poor fish a reasonable temperature.

Finally, if the reason you needed to try artificial respiration was that the fish spent some time on the floor, remember that at best he will lose some skin and fin tissue (wherever it actually dried out), and will be very prone to fungus and bacterial attack. I'd recommend adding an antibiotic such as Maracin as a preventative measure. And, of course, keep a good eye on him in the next few days. After all that work you don't want to lose him now!

°

Plastic plants, filters, and other plastic aquarium accessories can be easily cleaned by soaking in a bleach solution (1/2 cup Clorox, or better still, the cheapest brand of bleach you can buy which contains 5.25% Sodium Hypochlorite ... why get ripped off just to pay for the Clorox name? - to a bucket of water). Soak for awhile (half-hour). Rinse several times including a hot water soak for awhile. Or, safer still, rinse once with freshwater then soak for a couple minutes in hot water to which you've added a small handful of Sodium Thiosulfate crystals (50¢ a pound at photographic stores). Rinse a couple more times after the soak.

°

Speaking of Sodium Thiosulfate, the chemical ingredient of all those anti-chlorine drops, liquids, and pills on the market, I've heard and read occasional accusations to the effect that this chemical or some of its products may be just as deadly to the fish as the chlorine it is used to eliminate. Considering the very widespread use of this chemical, it seems rather doubtful to me that the use of this chemical constitutes very much of a danger, especially as I can find no authoritative references to this problem. Except one, that is. And I'd like to pass it on just as I found it. It is a passing mention by Myron Gordon in his classic "Fishes as Laboratory Animals" chapter in Farris'"THE CARE AND BREEDING OF LABORATORY ANIMALS". Speaking of eliminating chlorine by chemical means, Dr. Gordon says, "When sodium thiosulphate is used, if the water is slightly acid, sulfer dioxide may be liberated to form lethal doses of sulphuric acid", which certainly doesn't sound very appetizing to me. I certainly wish someone who knew what he was talking about would address himself to this problem. If, indeed, it is a problem.

Instead, we'll probably get some bozo quoting a TFH "water chemistry" book, which is rather like NASA consulting an old Flash Gordon movie serial to solve a problem in orbital mechanics.

°

One way to safely change some water in a fry tank without siphoning out fry in the process is to use a piece of airline tubing as a siphon with the end in the tank plugged by an airstone. Works slow but well.

°

Reprinted from Fin Features. In **Plecostomus**, July 1979, Blackhawk Aquarium Society, Inc.,Moline, Illinois.

MY PORTABLE, FILTERED POOL

Jack Bucko -Erie Aquarium Soc.

Last Spring I bought a small,child's folding plastic pool with Donald Duck pictures on the outside,for $8.50. The pool is six feet by 15 inches deep and holds 260 gallons of water. At the top, just below the plastic strip, I punched a 1/2 inch hole on two sides to allow for overflow. The pool is set under my oak trees and gets about two to four hours of sunlight a day.

Then I took a ten gallon aquarium and made a filter. Taking 1/4 inch strips of rigid plastic, cut to height, I siliconed them in perpendicular to the bottom of the aquarium, approximately five inches in from each end. Two strips on each side. I then bought two ten gallon tank dividers and placed them up against the stops. Through experience I found that I had to cut larger holes in these baffles to allow more water to flow through. Then I bought one inch polyurethane foam pad, cut it to fit into the ten, up against the baffles. At the inlet end of the ten I placed two-inch plastic sink elbows and pipe and made a siphon from the pool to my filter. (A note here, Make sure the filter is placed at the same height as the pool,top to top.)

On the opposite end of the filter I used a submersible pump (Little Giant Water Pump) which pumps about 300 gallons of water per hour. What this does then is draw water from the pool through the siphon, through the polyurethane pads, then out the pump. From the pump I used tubing (flex) to a 1/2 inch rigid piece of plastic pipe with holes drilled every 1/2 inch (1/8 inch holes) andsuspended this pipe over the pool at the opposite end of the filter. The water is then returned to the pool from the pump in a spray. This circulates water and also aerates it.

I was amazed how well my fish had done from June until October. They doubled in size and their color was fantastic. This year, I hope to put out two pools.

Here's a breakdown on cost (Ed note - in Indiana) Pool:$8.50; then gallon aquarium: $6; plastic strip: 60¢; Tank dividers: $1.50 each; Polyurethane (1"x2'x2'): $1.00; 300 gallon per hour pump: $30.00; five feet of tubing: $2.00; 1/2 inch rigid pipe: $2.50; Two clamps: 70¢; So -- for $54.30 I have a 260 gallon filtered pool.

One thing I forgot to mention was the cage I built to cover and surround my pool. My home is in a woods with a marshy area behind and we are overwhelmed with racoons, cats etc -- so I made an octagon shaped cage with the top hinged either way. Lord knows the racoons sure tried to learn the combination. I also was concerned with rain dripping from the oak trees and making the water more acid -- but it certainly didn't seem to bother my fish.

FEBRUARY BOWL SHOW CATAGORIES:

CICHLIDS	EGGLAYER/LIVEBEARERS
New World Medium	Guppies
Haplochromis	Barbs
Open	Open

A new world "medium" cichlid is any North, Central or South American species of cichlid whose ultimate size is between 4 inches (10 cm) and 7 inches (18 cm), except Mouthbrooders, Angels and Discus.

FEBRUARY PROGRAM:

Should be very interesting -- two members of our Breeders Award Committee and proven fish breeders themselves will give a program on the breeding of fish. As we understand it there will be slides and/or demonstrations -- along with an explanation of the breeders award program.

If you're interested in joining the program, you should be on hand to get answers to any questions you may have. If you want to breed, for fun or profit, you'll pick up plenty of tips.

A COMMENT OR TWO FROM THE JANUARY MEETING:

The first brief question period at the end of the program seemed to be a success -- this one focused mainly on plants. Who knows what will be brought up at the next. A good place to bring out any problems or puzzles your fish have presented you with.

A shuffle in the Coke plant's planning laid a bad initial scene on us -- two meetings scheduled at the same time. But we perservered and the civic committee had to find another hall. Too bad, but not our doing. Hope they have it all in hand by next meeting.

Woody mentioned a few pluses that are fat treasury will bring us,including a spring picnic; hopefully another subsidized banquet in the fall; trophies instead of ribbons for both club and big shows.

Should be a good year, 1980, for Potomac Valley Aquarium Society so keep on coming and be there at the "fin"ish.

P.V.A.S BOWL SHOW STANDINGS, JANUARY, 1980

CICHLIDS

New World, Large

1st - Cichlasoma maculicauda K.Warren
2nd - Cichlasoma maculicauda G.Neese

Riftlake mbuna

1st - Fullebornae - G. Neese
2nd - Albino zebra - K.Warren
3rd - Trewavasae - D.Holman

Open 8

1st - Hap. Richardi - K.Warren
2nd - Nan. anamola - D. Holman
3rd - Ap. Kleei - P.Mahoney

EGGLAYERS/LIVEBEARERS

Anabantoids

1st - Pearl Gourami - P.Mahoney
2nd - Pearl Gourami - P.Mahoney

Catfish - corydoras

1st - Elegans - P.Mahoney
2nd - Melanistus - P.Mahoney
3rd - Agassizi - P.Mahoney

Open

1st - Pictus Cat - G.Neese
2nd - Beeding heart - P.Mahoney
3rd - Red tail shark - K.Warren

	MONTH	QUART.	ANNUAL
Kenny Warren	16	16	16
Garland Neese	10	10	10
Darrell Holman	9	9	9

	MONTH	QUART.	ANNUAL
Pat & Maggi Mahoney	25	25	25
Garland Neese	6	6	6
Kenny Warren	2	2	2

PAT ON THE BACK - to Pete Tietjen, whose article "My Life with the Lion" was reviewed in Fish Facts, November,1979 - the publication of the Tri-County Tropical Fish Society of East Peoria, ILL.

CLOWN LOACHES -- Darrell Holman has them for sale, about 1-1/2 inch or so -- for $1.75 each. Call him at 532-3419 if you're interested.

H O
S P

A D
R N
O U

bap REPORT

NAME	POINTS
Joe Paull	505****
Ruth Brewer	305***
Garland Neese	290**
Gerry Hoffman	220**
Bev Fazil	180**
Pat & Maggi Mahoney	175**
Sue & Muke Sprague	165**
Woody Griffin	150**
John Jessup	95*
Kenny Warren	90*
Gene Aldridge	80

* Breders Award
** Intermediate Breeders Award
*** Advanced Breeders Award
**** Master Breeders Award

Recents points for spawnings:

Ruth Brewer - N. korthausae

Garland Neese - Ps. Zebra - Red Top, Blue-Black
Kingslie, Pseudotropheus
Petrotilapia tridentiger
Likoma Island M.Johanni
Pseudotropheus sp.

Woody Griffin - Austraiian rainbow
Red Swordtail
Discus

If you want to get into the Breeders Award Program,or have additional spawns to report -- here are the folks to call. (Remember, any member in good standing can sign in a 10 point spawn.)

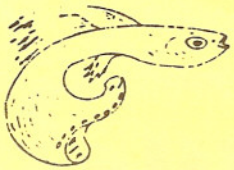
Alexandria/Arlington - Gene Aldridge, 931-7426
Dana Best, 548-1868

Fairfax City - Joe Paull, 591-9245

Fairfax County, Falls Cururch -
Ruth Brewer - 893-6997 (D.C.,too)
Pat Mahoney - 534-0006

Warrenton - Gerry Hoffman, 347-7486

Prince Georges County, Tom Wright, 345-7486



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	Corresponding	$5.00
Individual	$ 7.00	Junior (under 18)	$3.00

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 Cocoa-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

1980 MEETING DATES

	APR. 14	JUL. 14	OCT. 13
FEB. 11	MAY 12	AUG. 11	NOV. 17
MAR. 10	JUN. 9	SEP. 8	DEC. 8

Meetings are held at the Coca-Cola Bottling Plant, 5401 Seminary Road, Bailey's Crossroads, Alexandria, Virginia. Meetings start at 8 p.m., Bowl Show Registration at 7:45 p.m. -- Doors open at 7:30 p.m.