

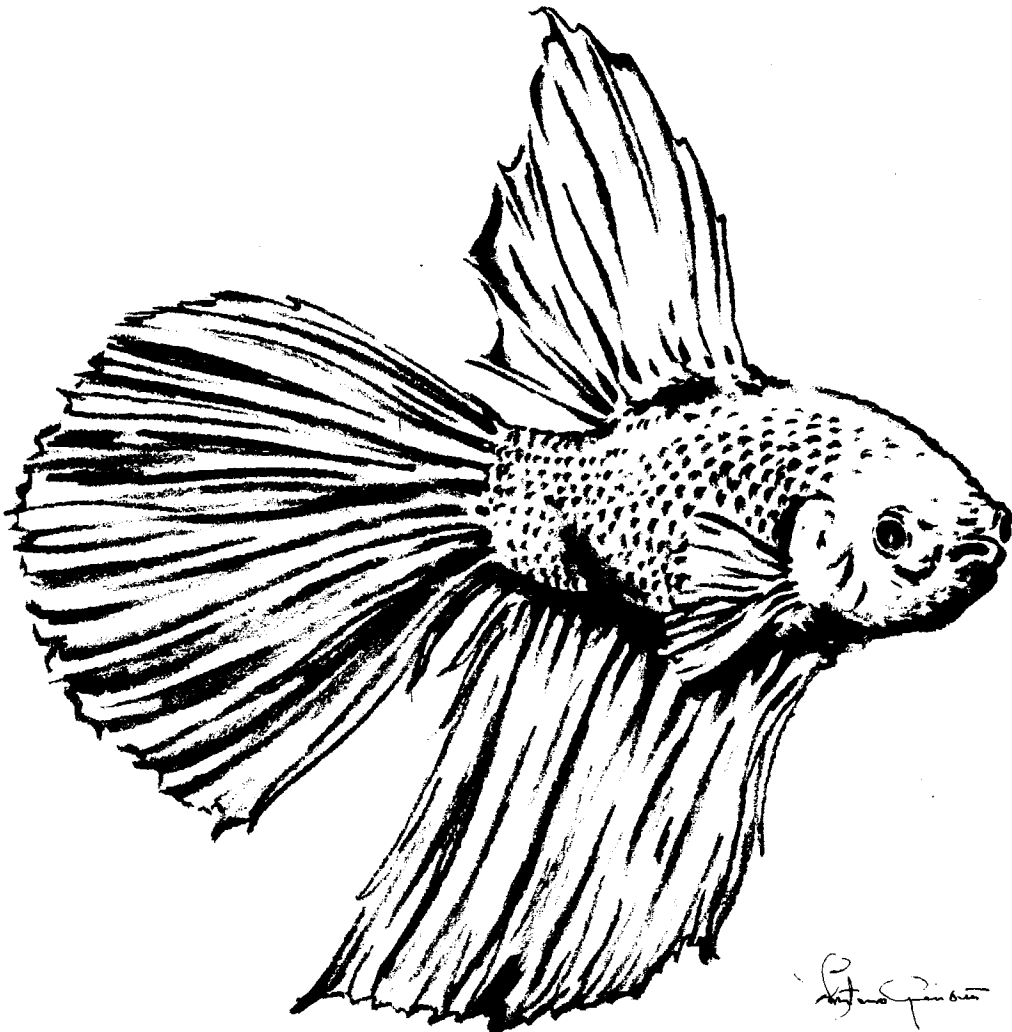
* DELTA TALE *

February 1984
vol. 15 #2

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OFFICIAL PUBLICATION OF

potomac valley aquarium society



POTOMAC VALLEY AQUARIUM SOCIETY



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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; one will be forwarded to the author/artist. All material for inclusion in Delta Tale should reach the editor by the 20th of the month prior to the monthly meeting. P.V.A.S. and 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 the buyers.

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PVAS BOARD OF GOVERNORS, 1984

Jerry Stirman, Darrell Holman, John Mangan and Kenny Warren.

Ex Officio Member - Pat Mahoney

PVAS COMMITTEE HEADS, 1984

Auctions:		Bowl Show	: Frank Angilletta
BAP	: Woody Griffin	Programs	: John Jessup
HAP	: Jim Long	Ways/Means	: Alex Cummins
Library	: Maggi Mahoney	FAAS	: Woody Griffin
Membership:	Kurt Schnepf	Delta Tale	: John Mangan
Spring Show:	Darrell Holman		

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FROM THE PRESIDENT

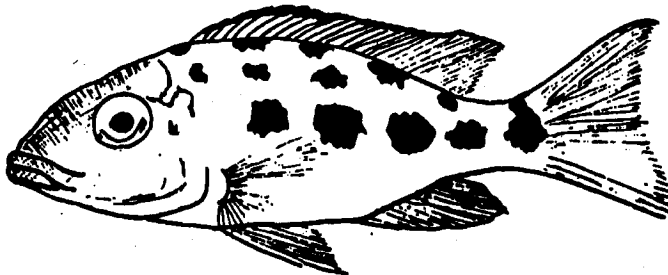
Thanks everyone for making January a very successful month for PVAS activities. I don't just mean the Board members or committee heads, but everyone who participated in what PVAS had to offer. Despite the cold weather, snow and ice we all suffered through, there was an excellent turnout for the BAP slide show. The monthly Bowl Show had so many entries that we had a hard time finding table space for all those drumbowls. Our Ways and Means chairman ran out of raffle tickets early in the evening, and if things repeat themselves in February we will have to add more goodies as raffle prizes.

The turnout at Jim Long's home to begin the Open Fish Room Program was outstanding. Here is an opportunity for everyone to learn so much about our hobby from others by seeing first hand the best our club has to offer. Not only was it fun getting out and talking with other excited hobbyists, but there was so much to see you had to enrich your knowledge of aquarium management and plant cultivation. This is what PVAS is all about, so why not be there next month?

These winter months are indoor months, with extra time to devote to your tanks and fish. Before too long Spring will take our minds off of algae scraping and water changes. Spend some time now with your fish, work on spawning that pair of whatever that has not responded well to all your efforts up till now. And keep in mind that coming up in May is our Spring Show and Auction. It wouldn't hurt to start conditioning your best fish in preparation for that weekend event.

February starts our mini-auctions at the end of the meeting. Bring your fish, your money and yourself and have a good time. See you there.

Berry



EDITORIAL

Well, here it is , my first solo issue as editor of Delta Tale. Even though my name was on the January issue much of the credit for it should go to Pat Mahoney. He did a great deal of the work. Thank you Pat, your help was greatly appreciated.

While I'm on the subject of thanking people I'd like to thank Pat and Maggi Mahoney for giving me a crash course in how to put a magazine together. I couldn't have had better teachers.

The Delta Tale staff so far consists of : Amy Stirman, who will be searching through the exchanges to find good articles for us to reprint. Pat Mahoney, who will be writing the Mirror column. Alex Cummins, who will be my all around assistant, helping where ever he's needed. And finally, myself, who will be doing whatever it is an editor does.

I could still use the help of one or two more people as typists. The qualifications for this job are; 1) ability to type neatly 2) have enough free time to type 5 or 6 pages each month 3) come to either the general or board meetings each month so I can give you things to be typed and pick up things you have finished 4) most important, reliability.

Two new regular (I hope) features are being introduced with this issue. They are a trading post and a question and answer column. Details elsewhere in this issue.

Another area where help is needed is writing articles. Recently Delta Tale barely missed being changed to a bimonthly format. Actually it was officialy changed at the Nov. board meeting only to be changed back at the Dec. one. One of the problems that brought about this action was lack of support from the general membership. I need people to write and send in articles, and not just BAP articles that you have to write to get your points. It doesn't have to be Pulitzer Prize quality, part of my job as editor is to polish things up . As you will see from the variety of articles in this issue there are a variety of topics to write about; Plants (pg.16), Humor (pg.13), problems that you've encountered and how you've solved them (pg.9), new ways of doing things (pg.14)(the reason I chose this article was the method of feeding the fry not to let you know how to spawn glassfish, although that is interesting too), and of course the ever popular BAP reports (pg.8). There are also many more areas to be written about.

On a lighter note- I just got back from the Jan. open house at Jim Longs'. It was a great success, standing room only. Everyone seemed to have a good time, learn something, and walk away with a bag or two (or 3 or 4) of plants. Those of you that didn't come missed some pretty neat stuff: a saltwater tank with a recent spawn of neon Gobies and lots of anemones, spawns of peacock gudgeons, dessert gobies, congo tetras, Crenicara, newly natched plecostomus (very neat looking), plus much more. There were also plants, plants, plants, live foods, and a pony (a very strange looking pony that barks like a dog).

I'm running out of page so one final brief note- be sure to come to the Feb. open house at Garland Neeses'. You'll see how he got his 1000+ BAP points.

ON THE AGENDA

February Program : "Fish Breeding". This should be a good follow up to last month's BAP program. That showed you what to breed this one should show you how to do it.

Raffle: 10 gallon tank, outside power filter plus other goodies. Each month should be bigger and better.

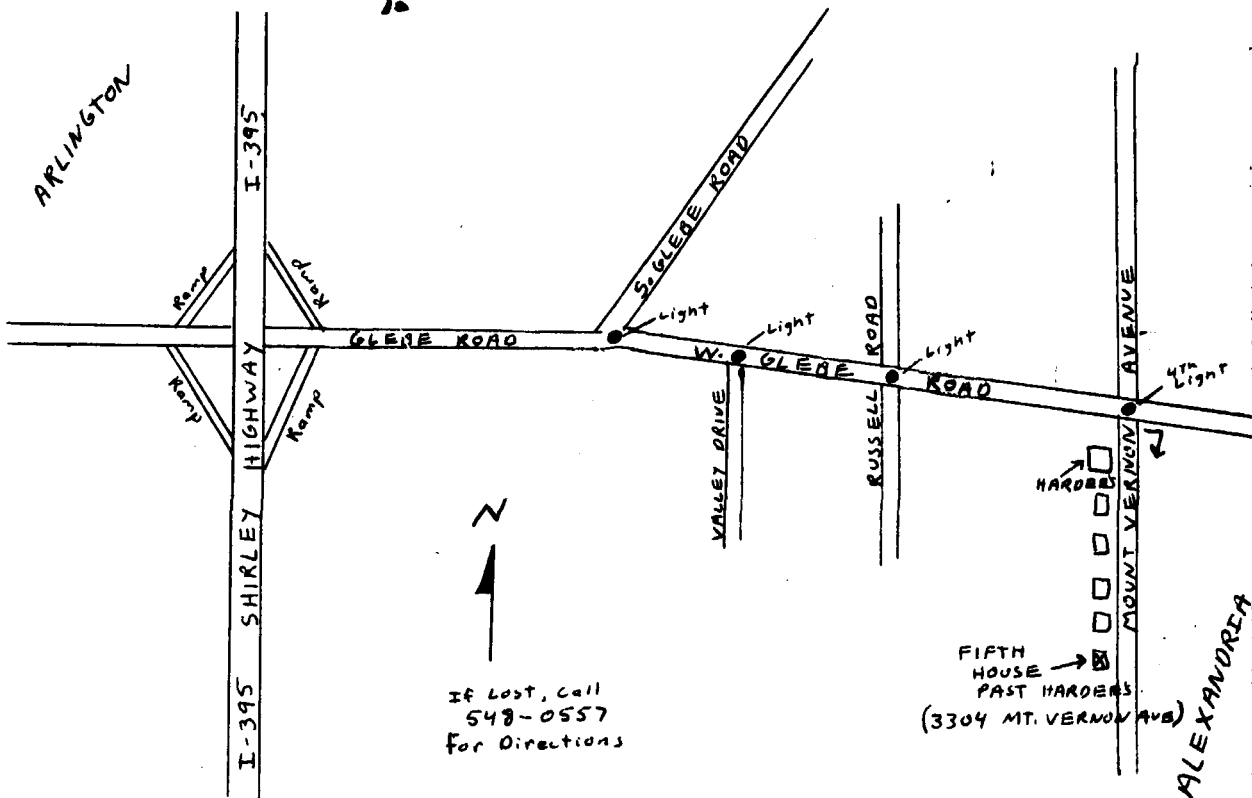
Bowl Show : Best overall fish of the night wins 8 oz of Tetramin Flakefood

Mini-Auction: Following the program. See rules in this month's Delta Tale.

Open Fish Room: At Garland Neese's
Sunday, Feb. 19 3304 Mt. Vernon Ave.
1:00-3:30 Alexandria, Va. 22305

Phone:
548-0557

Garland's specialties include large fish and large tanks. Lots of African cichlids, a Lifeguard filtration system and fish everywhere.



BOARD OF GOVERNORS

MINUTES OF THE BOARD OF GOVERNORS OF POTOMAC VALLEY AQUARIUM SOCIETY FOR JANUARY 1984

Attending: Amy and Gerry Stirman, John Mangan, John Jessup, Kenny Warren, Pat and Maggi Mahoney, Gerry Hoffman, Ruth Brewer, and Peter Tietjen. Susan Ogilbey attended as a guest. The meeting was held at the home of John Jessup.

The meeting was called to order by Gerry Hoffman at 10:11 a.m.

OLD BUSINESS

1. As authorized by the Board at the December meeting, John Jessup has purchased bulk Tetra-min and several 10 gallon tanks to be used as raffle prizes for the expanded monthly raffles. The price for tickets will be three (3) for \$1.00.

2. The Delta Tale will be published each month with John Mangan as the editor. Pat Mahoney requested that everyone try to write an article for the Delta Tale at some time during the year. We no longer have a backlog of spawning reports or other articles.

3. Work is progressing on revising and updating the Club roster. Kurt Schnepf has been given a print-out of the current roster. He will obtain corrections on the print-out and get it to Peter Tietjen who will up-date it on the computer systems that he has access to.

4. Letters have been sent to tropical Fish Hobbyist magazine and FAMA announcing the dates of our Spring 1984 Show and Auction. The dates which have been reserved with the fire house are May 18-20, 1984. In addition, all dates for regular monthly meeting shave been reserved. There is a possibility that the fire house may undergo renovations at some point in the future which may cause us to have to move the meeting. This is not definite at all and will be dealt with if it arises.

5. A meeting of the Breeder's Award Program committee was held recently which revised the BAP slide show. This will be the program for the January regular meeting.

6. A discussion was held on the 1983 Christmas party which was a dessert and punch only affair. Several members objected to the change from a a dinner, and it was decided to look into going back to a dinner for next year's party.

7. Susan Ogilbey, a law student at George Washington U., was introduced. She will handle the incorporation of the Club. The incorporation will be in Virginia. Susan will revise our Club By-laws to fix several defects which are present. The revised version will be presented to the Board at the February meeting. Gerry Hoffman was appointed as the corporate agent. The entire incorporation process should be done in about two (2) months. All current officers will be reelected in the new corporation.

NEW BUSINESS

1. The Club will renew its membership in the American Catfish & Loach Association, and in the Federation of American Aquarium Societies. We will attempt to have our Show accredited by the American Cichlid Association and possibly the American Killifish Association.

2. A discussion of the Show was held. Gerry Hoffman suggested the possibility of having the Club picnic be held in the late afternoon and evening of the day of the Show. The possibility of having an afternoon seminar of some type was also discussed. Since Darryl Holman, the Show chairman, was not present, it was decided that all this should be discussed with him and his Show Committee. A brief discussion on trophies was held, with no recommendations.

3. Pat Mahoney offered the Club's congratulations to John Mangan who has recently been elected to a two-year term on the Board of Governors of the American Livebearer's Association.

4. Ruth Brewer suggested that we compile a note-book of all Club forms used for the Show or the Auctions.

5. Gerry Hoffman again raised the possibility of holding a mini-auction at the regular meetings, rather than twice a year. Rules for this mini-auction were discussed with the general consensus being that entries must be restricted to three (3) bags per person or six (6) bags for a family membership. Gerry Hoffman was empowered to purchase fish to be entered in the auction with all proceeds going to the Club. This will be limited to \$20.00 each month.

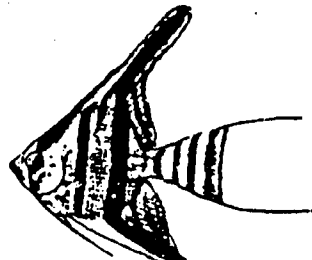
6. Pat Mahoney will submit another order to MIT Press for the Aquarium Encyclopedia by Gunther Sterba. The cost is \$22.00 which must accompany the order. Pat will place the order on February 1. Anyone wishing a copy of the book should contact Pat. For every ten (10) books ordered the Club will get one free.

7. A discussion of future programs was held. John Jessup has reluctantly agreed to be the Program Chairman.

The meeting was adjourned at 11:34 a.m. so that everyone could get home in time to watch the Redskins beat the 49ers.

Respectfully submitted,

Peter D. Tietjen
Recording Secretary



Cichlasoma managuense (Gunther, 1869)

Alex Cummins, PVAS

- The Managuense is a large aggressive cichlid native to Nicaragua. The requirements for maintaining these cichlids are extremely flexible but they do need a large tank for optimum growth.

I first found these cichlids in a large tank (over 300 gal.) at a local fish store. In this tank the cichlids were seen to be preparing to breed and against my better judgement I bought them. I brought them home and set them up in a 30 gal. tank. My intention was to clean my 55 and set it up for the pair (famous last words). They proceeded to steam shovel the gravel all over the tank and seemed to take extreme pleasure in defending their home from the viscious siphon tubes of the powerfilter I had on the tank. Finally I decided that this filter was almost never working so it was abandoned. Fortunately being an old saltwater buff there was an undergravel filter which seemed to be sufficient to keep the tank aerated and clean.

Well needless to say the fishs were never moved. They covered an 8" x 8" area with 1/16" eggs. The temperature in the tank at the time ranged from 86-90°F and the pH was 6.0, the DH was also 6.0. After a couple of days the eggs hatched and were shoved into a pocket between the rocks. These wrigglers were moved daily by the parents.

The fry were free swimming in several days and were kept quite close to home by both parents. It's kind of fun watching mommy and daddy keep up with 10,000 little kids. After a day or two of free swimming the parents were removed. After removing the parents the neat mass of fry dispersed about equally throughout the 30 gal. tank. As the fry that were larger started growing they started feeding on each other and setting up territories. There were very few mornings when several headless fry weren't found in the tank. After 60 days the number of fry was down to around 50 3/4" fry to 1 1/4" fish. I call the 1 1/4" fry fish because it is at this size they begin to look like their parents. (ed. note- this made me curious as to when a fish stops being a fry and can be called a fish. The closest thing to an answer I could find is that a "fish" is a fry until sexually mature. I find it hard to consider a 4" oscar as a fry. Anybody out there have a better definition? J.M.)

Anyone interested in joining the American Cichlid Association can contact Pat or Maggi Mahoney for membership applications.

Anyone interested in the American Livebearer Association can contact John Mangan for information.

Have you ever sat helplessly by and watched eggs, laid by a fish you've been hoping to spawn for months, slowly fungus away? If you have you'll know how I felt recently as I watched my first spawn of Australian desert gobies (Chlamydogobius eremius) slowly dying.

The eggs were several days from hatching (they take 6-8) so I decided it was time to move them into another tank to hatch. The male had been taking good care of them, fanning and protecting them, but I didn't want to risk having the fry eaten by the other fish in the tank.

The rock that the eggs had been laid on was carefully lifted from the tank and placed into another smaller tank. The eggs all looked fairly well developed and ready to hatch any day.

The first day after moving everything looked fine. About 6 o'clock on the second day I noticed a little fungus starting at the center of the egg mass so I added a little Acriflavine. By 11 o'clock that night about half of the eggs were covered with fungus or turned a milky color. By the afternoon of the third day two-thirds of the eggs were fungused or bad.

I'd given up hope and was walking away when an idea suddenly occurred to me. Why not try to remove "surgically" all of the fungused eggs. I wasn't sure if it would be possible or not since the eggs of this species are connected by a sticky substance which holds them to the rock (they hang upside-down under the rock much like bats on the roof of a cave). Pulling on the bad ones would possibly also pull off the good ones. I decided that I had nothing to lose by trying, they were all going to die if I did nothing.

The first thing I did was to get a piece of airline tubing and carefully siphon out the largest clump of fungus at the center of the egg mass. I hoped that the fungus had destroyed the connective substance that holds the eggs in a mass. It had, at least in the center, and the fungus clump was pulled off.

Next, using a dissecting probe I began to carefully scrape away the remaining larger patches of fungus and bad eggs. The fungus came off easily but the milky eggs that had not yet fungused were still firmly connected to the good ones. After removing as much as I could using only the probe I began using a teasing needle (this is a thin needle with a sharp point and a wooden handle used for "teasing" things apart when dissecting small or delicate items) to remove the milky eggs. This was where all of my dissecting experience paid off as patience and a steady hand were needed to keep from damaging the good eggs.

After all of the bad eggs had been removed I once again used the piece of airline tubing as a siphon to remove the debris off of the bottom.

Now came the hardest part, waiting to see if all of this effort had done any good.

The next day everything looked healthy and the following a few eggs hatched. Over the next few days almost all of the remaining eggs hatched, only a few had gone bad. (This species spawns over a period of up to a week, that is why the eggs hatched on different days). The fry are several weeks old now and growing rapidly.

The moral of all of this is when things look hopeless don't give up, try something. You never know what might work and if you fail, well at least you tried and you've learned what won't work. Next time you can try something else.

ed. note- in the months since I wrote this article I have learned, through trial and error, that the eggs and wrigglers of this species are very fussy about the amount of current flowing over them. A little too much or too little and they will fungus (even wrigglers). It is, therefore, best to leave them with the male until just before free swimming. He seems to know exactly what to do. I have never had a spawn go bad while the male is caring for them. J.M.

TRADING POST

Wondering what to do with all of those fry after you've gotten you're BAP points? What about those extra tanks or filters that are gathering dust? Can't find a mate for you're Whatchamacallitus thingamajigi? Well then this is the column for you.

Send your ads for fish or related items to - Delta Tale c/o John Mangan, 9770 Oleander Ave., Vienna, VA 22180 by the 15th of the month. We exchange publications with over 50 other clubs so your ad will be seen all over the U.S. and Canada.

wanted: backissues of Delta Tale (all before 1980), also other magazines and old books. Male chocolate gourami, several female Characodon lateralis.

trade or sale: backissues of T.F.H., F.A.M.A., other magazines. John Mangan, 9770 Oleander Ave., Vienna, VA 22180.

MINI-AUCTION RULES

Rules will be basically the same as our large Spring and Fall Auctions

1. Any PVAS member may bring fish or hobby related items for sale.
2. Limited to 3 bags per person/ 6 bags per family
3. Registration will begin at 7:30 and end prior to the program
4. \$1 minimum on all bags unless seller wishes to assign a higher minimum.
5. No payment will be made to seller at the meeting. Payment will be forwarded by mail within 10 days.
6. 2/3rds of the selling price will go to the seller; 1/3 is retained by PVAS.

THE MIRROR

PAT MAHONEY

REPRINTS

IN MEMORIAM (Guy Jordan), Pat Mahoney, THE DAPHNIAN,
Boston Aquarium Society, JAN 84.

THE NOT SO BAD BADIS BADIS, Kay and Gerry Wagner,
THE NEKTON, Saskatoon Aquarium Society, DEC 83.

REVIEWS

SPAWNING GEOPHAGUS JURUPARI, Vince Edmondson, ALL CICHLIDS,
Michigan Cichlid Association, JAN 84.

SPAWNING THE RED DEVIL, Pat Mahoney, ALL CICHLIDS, Michigan
Cichlid Association, JAN 84.

SPAWNING CRENICARA FILAMENTOSA, Darrell Holman, THE DAPHNIAN,
Boston Aquarium Society, JAN 84.

A TIGER IN MY TANK, Pat Mahoney, THE DAPHNIAN, Boston
Aquarium Society, JAN 84.

PTEROPHLLUM SCALARE, Frank Angilletta, THE DAPHNIAN, Boston
Aquarium Society, JAN 84.

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THINK ABOUT IT!

Writing those spawning reports to fulfill requirements of the Breeders Award Program seems to be a painful experience for some of our members. This shouldn't be since the purpose of the BAP is for all of us to learn about the spawning of fish. Any member, by publication of an article in DELTA TALE, shares that experience with his fellow Society members.

How many times have you heard the statement "It's only a ten point spawn so I don't have to write an article"? Such a statement is at cross-purposes with the BAP. Of course you don't have to write an article for a ten point fish - it says so in the BAP Regulations. I would point out, however, that there is no regulation that says you may not do an article. So lets share all of our experiences. Someone out there might just profit from your experience.

You might also consider another point. PVAS exchanges publications with over fifty different Aquarium Societies. Well written articles by our members may be reprinted or reviewed (like the above) in other Society publications. This can reflect favorably on the author and PVAS. Thus are we known.

One final thought. If your article is well written and there is the slightest tinge of pride of authorship involved, type the article in final form before turning it in for publication. Lets not leave ALL of the typing for your Editor - I know John Mangan will appreciate it.

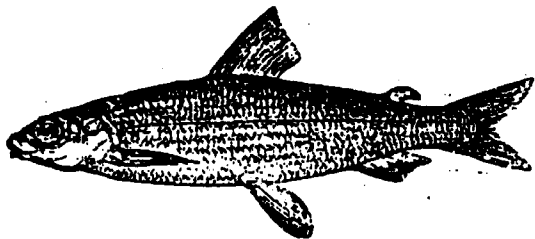
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What? Where? When? How?

??? QUESTIONS ???

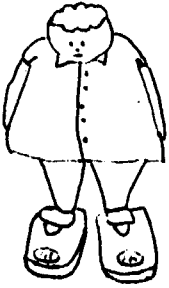
Q. What's this column all about ?

- A. Anyone having a question about fish, plants, live foods, or anything else to do with aquariums can send it in to "Delta Tale". If the staff is unable to answer it we will attempt to find someone else in the club, that is knowledgeable on the subject, who can answer it. If that fails to get a suitable answer we will print the question in this column without an answer and ask that anyone that can help contact "Delta Tale". We will then print the answer in a future issue. Since we exchange publications with over 50 other clubs chances are that someone out there will know the answer. Send questions to -- Delta Tale, c/o John Mangan, 9770 Oleander Ave., Vienna, VA 22180. The questioners name will not be printed, so don't worry about asking what you think is a dumb question.



THE FABULOUS FISHTANK DIET

By Glen Eason, MCAS



I am fat, or should I say, I was fat. A rolling, jiggling mass of flesh; 240 pounds of total lack of control; a melon with toothpick legs. That was me. The shrink told me I was fat because I was angry. I didn't know who I was mad at, but at \$90 an hour I figured he knew what he was talking about.

One afternoon while waddling from the kitchen to the living room, and laden with four sandwiches, a bag of chips and a quart of ice cream, I happened to notice my fish for the first time. Intrigued I set down my after lunch snack and peered through the glass for a closer look.

To my amazement, I found that none of my fish were fat. Not even the slightest little pot-belly anywhere. I knew in a flash of insight that they had the secret of weight control and if I could figure out what it was, I need never be fat again. My pudgy fingers closed instinctively around a can of Tetramin. With shaking fingers I pried off the plastic lid and sniffed. It was pretty disgusting, but you don't get to weigh 240 pounds without eating some pretty disgusting things. I crammed a pinch into my mouth and chewed. I can assure you that if food were the answer, I'd still be fat. I grew angry and choked down two of my sandwiches and the bag of chips to soothe myself.

Suddenly I knew it had to be the water. I poured bag after bag of gravel into my bathtub, put in a couple of little ceramic castles and even one of those little treasure chests with the lid that opens to let the air bubbles out. For the next week I lay in my modified tub for twelve hours a day only leaving eleven times a day for meals. If you've never had the occasion to see badly wrinkled fat, I'll spare you the details.

There had to be an answer and I was determined to find it. I vowed to sit in front of my tank and observe until the truth became clear. It didn't take long.

When I first sat down I peered, no scowled, into the tank for the answer. Did they have tiny health spas in there? Were they taking pills? Did they have a little fish fat farm? I had to know!

I noticed suddenly that my scowl had changed to a smile. I was relaxing and enjoyed watching the graceful turns and glides my fish made. I felt myself fall into tune with them and tasted a gentle wash of serenity sweeter than any morsal which had ever passed my lips. I wasn't angry any longer. I turned on the stereo and tuned in a classical station, dimmed the lights and watched. My hunger left with with my anger. I found the secret.

Today I've trimmed to under 190 and I'm not mad at anyone, not even the \$90 an hour psychiatrist. I learned serenity and control from my fish.

A note of caution to the weak-willed and those of little strength of purpose, who may try this diet. Make it a point to concentrate on a tank holding only spiny, toothy, poisonous fish... it makes it a lot easier to keep your face out of the tank!

Reprinted from "Tropiquarium", Motor City Aq. Soc.

THIS GLASS IS NOT MARKED FRAGILE, BUT PLEASE.....

HANDLE WITH CARE

BY Jerry Pess (LIAS)

The glass fish has always attracted the attention of the aquarist as well as the non-aquarist because all of the vital organs are plainly visible through their nearly transparent flesh. We can only wonder why nature designed such a strange little fish with its "innards" so exposed.

The glassfish belong to the family Centropomidae and were formerly classified Ambassidae. They range from East Africa and the Red Sea to Japan, Australia, and the Pacific islands and are found in both fresh and saltwater. At the present time there are three species available in quantity to the aquarist; Chanda buruensis, C. commersoni, and C. agassizi, which is also known as C. ranga or lala.

All glassfish have two dorsal fins; the first is spiny and the second is soft-rayed. Both connect at their base. All have the same requirements as far as pH, DH, and salinity are concerned and all three can be spawned in the same fashion. This article will deal with my experience with Chanda agassizi.

Chanda agassizi are found in tremendous schools in the waters of India. They prefer brackish water, but are also found in completely fresh water. So, for their well being in a community tank, the addition of one heaping teaspoon of salt (non-iodized) for every ten gallons of water is beneficial. This small amount of salt will not be harmful to most other species, but is a necessity for the glassfish.

Their one drawback is that glassfish MUST have live food at least three times a week; either brine shrimp, Daphnia, tubifex, or chopped white worms or earth worms. They will take freeze-dried foods or food that is mainly made up of animal matter. The ordinary fish foods will be ignored and, without proper animal-type food they will not survive.

Sexing the glassfish is not too difficult. The male has dark coloration on his anal and dorsal fin margins and a sky blue edging frames the hindpart of his body when viewed with the light coming in from the front of the tank. On the other hand, the female is completely without color. Getting the fish to spawn presents no problem, they spawn freely and at times will spawn in a community tank, but raising the young requires a special type of setup.

The type of tank used should be a 20 gallon long, the pH should be 7.0 and the DH should not exceed 10 degrees. Cover the bottom of the tank with gravel, that has been washed well, to a depth of about one inch. Now, and most important, you must form a plateau of slate six inches high at the rear covering the whole length of the tank. Then fill the tank to a depth of seven inches with aged water. Add salt (2 tbs. per gallon) and maintain a temperature of 80°F. The back and one side of the tank must be covered with a dark plastic or plywood so no light enters from the back or side. Now, in the side that is covered cut an opening of about one inch in diameter

(in the plastic or plywood) above the slate plateau and fasten a small light to the opening. I use a 15 watt clear Christmas bulb. On the side of the tank that is not covered, anchor any bushy type plant or plastic spawning grass. This side should be densely planted with your spawning media. Place the tank in an easterly position, so that the first light of day will fall on the front of the tank and spawning media.

Now that your tank is setup, let's get to the actual spawning. Breeders should be at least 1½ inches long, full-bodied and robust. Select a trio of two females and one male, separate and condition them for at least a week on live foods only. Place them in the breeding tank after darkness, then raise the temperature to 85°F. Under these conditions the fish should spawn within 72 hours.

Now, I'll explain the reason for the slate plateau and small light. The front of the tank will have a swimming area 6 inches deep for your breeders and the plateau will serve to keep the fry and their food in only one inch of water. Both the fry and the infusoria will be attracted to the light so the fry will be surrounded by food. The glassfish fry will not hunt for their food; it has to be right in front of them at all times or they will starve. That is why this type of setup will succeed where others fail. I use the drip method of feeding and make sure the drip is near the light.

The spawning ritual is a pretty site. The male courts the female by turning upside-down in front of her. Soon the female will swim alongside the male and both of them do somersaults together. After a few false starts, and while they are both in the upside-down position, she will release a few eggs which are fertilized immediately by the male. The eggs are discharged directly into the spawning media. The fry will hatch in about 18 hours and will be extremely small. The next day they will swim horizontally and will be attracted to the light. Food must be provided for them at once.

Most spawnings of glassfish are lost because of improper feeding. Remember, just one day without enough food will take a heavy toll on the fry. The same feeding procedure as for pettas or gouramies is used. Green water for a few days, then infusoria for about one week. Parents can be left in the tank because the spawning activity goes on for several days. The glassfish is not an egg eater and if well fed will not eat their fry. But it is always good practice to remove the parents when all the fry become free-swimming.

In about 10-14 days, the fry will be ready for baby brine shrimp but don't discontinue the infusoria feeding for at least two days because the fry that are born last will not be large enough to eat the baby brine shrimp.

Reprinted from "Wet Tales" Susquehanna Aquarium Society, who reprinted it in part from "Pisces Press", Nassau County Aq. Soc.

ed. note- the idea of using the plateau and light is a very good one, wish I'd thought of it. This should work with other types of fry as well. Try it and let the rest of us know. J.M.

Aquatic PLANTS

by GORDON PETLEY JONES

Plants, probably the most mistreated living things that we put in our aquariums. Both new and experienced aquarists are still dumbfounded as to why their beautiful new plants slowly disintergrate into the gravel of their aquariums.

Most aquatic plants are actually very easy to grow, that is if you follow a golden rule. Treat your plants like you do your fish, give them right water conditions, food and lighting and they will flourish with great abundance.

Let's take an example. You have just set up an aquarium with Discus and are in the process of deciding what plants you would like to see in the aquarium. Hoping that you have already discovered that your Discus prefer soft, acid water with dim lighting, you limit your choice of plants to the category which suites these conditions. You may choose some small Crypts for the front of your aquarium with larger Crypts and/or Hygrophilia at the rear. You would'nt, however, plant Valisneria or water sprite, as the lighting which suits your Discus would not be strong enough for these plants. They would turn brown and waste away to nothing. Therefore, when buying plants, first set up the aquarium for the type of fish you want in it and then buy the type of plants to suite the aquarium's environment. (ed. note - if there is a particular type of plant that you want, set up the tank to suit the plant, then chose fish that fit these conditions. J.M.)

Let's start with water conditions. As far as your pH and DH factors are concerned, plants almost without exception prefer soft, acid water. Some of your plants, such as watersprite, will however, tolerate somewhat hard and alkaline conditions. (ed. note - in my experience watersprite does not do well in alkaline water. J.M.) Another water condition which people tend to ignore when it comes to aquatic plants is water temperature. This is particularly true for Aponogetons and some Cryptocorynes. Some of the Cryptocorynes available will suffer badly with the water temperature below 75°F while others do poorly at temperatures in the mid 80's. So when all else fails to get your Cryptocoryne growing, try a change in temperature, keeping in mind Cryptocoryne are very slow growers in the first place. Aponogetons, on the other hand, are'nt too fussy about temperature during their growing season but should be placed at a temperature of about 55-60 during their dormant season. Next time you look at your Madagascar Lace Plant and

it looks like it's dying , it's probably going into it's dormant season and should be removed from the aquarium, placed in a jar with a damp cloth (to prevent it's rhizome from drying up) and placed at 60°F for about 2 or 3 months. At the end of this time it should be returned to the aquarium where some development should take place within ten days.

Nourishment for aquatic plants under most situations is no problem. An aquarium stocked with an average number of fish and adequate filtration will allow fish droppings to accumulate on the bottom. Aerobic bacteria in turn break down this waste material providing the plant roots with necessary minerals for growth. Occasionally , however, an aquarium is set up with strong filtration and a few select fishes. This combination reduces the amount of fish droppings as well as the amount of bacteria thus starving your plants. I have found solutions to this problem and I usually use a combination of both methods. First, try putting an inch of peat in the bottom of your aquarium under 2 or 3 inches of gravel. The other solution is to add plant food to the water. No, not the tablets you buy in the pet stores; they are too expensive for what you get. Try using Hyponex (trade name) which is a house plant fertilizer. It's not harmful to the fish, it's cheap, and it noticeably stimulates plant growth. Don't overdo it or you'll find algae growing over the glass, rocks, plants, and gravel. About one teaspoon for a 50 gallon tank per month is ample.

While on the topic of algae, I find that some aquarists become quite frantic when they see algae growing on the glass of their aquariums. This is actually a very healthy state. (ed. note- this refers to green algae, brown and blue-green are a different matter. J.M.) However, when algae grows so quickly that the leaves of your plants become choked with it this simply means that either the lighting is too intense or on for too long a period of time. To confuse matters more, the water chemistry in your aquarium can often play a large part in the amount of algae growth. Another type of algae is the brown algae and this is a result of not enough light in the aquarium and does not induce a healthy growing environment for your plants.

Probably the most significant aspect of growing plants is the lighting. What we have to do here is to duplicate the lighting conditions found in the plant's natural habitat. It is known that plants mainly absorb light from the blue and red parts of the light spectrum and the closest we can come to portraying this is by the use of a fluorescent fixture with a gro-lux tube. As the gro-lux light is strong in the blue and red areas of the spectrum, it is ideally suited for plant growth.(ed. note- see my note on the next page. J.M.) Unfortunately , it has the unwanted characteristics of making an aquarium look underlit due to the lack of yellow in its light spectrum, and with the strong blue in its spectrum the aquarium takes on a very cold atmosphere. These problems can be overcome by combining different types of lighting. Using a fluorescent tube or even incandescent bulbs, both of which have strong yellow component in their light spectrums, making

an aquarium look warmer , brighter and thus more natural while still inducing good plant growth. (ed. note- instead of grolux try using one of the several brands of full spectrum bulbs now on the market. They give the tank a very natural look and are very good for growing plants. J.M.)

Should I buy incandescent or fluorescent lighting for my aquarium? This is a question which anyone new to the hobby asks, and almost without exception ends up with incandescent. A "logical" choice for the beginner as it is cheaper, it produces just as much light , and you can even use light bulbs of different colors and brightnesses!! What he finds happening over the following few monthes is that his electicity bill increases far more than if he had used fluorescent lighting, the heat generated by the lights has made the water temperature in his aquarium flucuate up and down like a yo-yo with the succeeive turnings off and on resulting in that ever so popular disease called "ick". And those colored lights, well, they make the aquarium look like a Christmas tree more than anything else. So 90% of us "logical" thinkers end up replacing our incandescent lights with fluorescent lighting. I have found, as stated earlier, that the only place for incandescent lighting in an aquarium is as complementary lighting for the grolux lighting. Yes, I know fluorescent fixtures are fairly expensive, but only initially; you save on electricity, you don't have to run down to the aquarium store every other day to replace light bulbs, and those plants are really looking beautiful!

Another mistake many people make, is only turning the aquarium lights on for a few hours during the evening. Unless your aquarium is receiving a lot of naturallight, this won't even stimulate algae to grow, unless of course its's brown algae. Generalizing, most aquariums should have their lights on between 12 and 16 hours a day.

To finish off with lighting, I have made a list of some of the more common aquarium plants. The first plants listed require the least amount of light and light requirements increase so the plant~~s~~ at the end of the list require a high light concentration.

- | | |
|--|-----------------------------|
| 1) Madagascar Lace Plant | 7) Wisteria |
| 2) <u>Cryptocoryne</u> spp. | 8) Pygmy Chain Sword |
| 3) <u>Hygrophilia</u> | 9) <u>Sagittaria</u> spp. |
| 4) <u>Aponogeton</u> , other than
Madagascar Lace Plant | 10) <u>Banana Plant</u> |
| 5) Amazon Sword Plant | 11) Water sprite |
| 6) Radicans sword | 12) <u>Cabomba</u> spp. |
| | 13) <u>Vallisneria</u> spp. |

At this point , I would like to write about the plant killer! This is the person who obviously detests plants, for all he ever seems to do is to continually shuffle plants about his aquarium just because they didn't look quite right before. After two or three monthes and after all the plants have given up and died, he throws them out and buys some more victims, only to give a repeat performance. This is your plant killer.

Most plants in your aquarium take at least a couple of monthes to establish their new root systems, some as long as a year.

It is important not to disturb the root system during this time for it is during this time that the old root system dies off and a new one takes its place. Any transplanting will only weaken this new, smaller root system and successive moves will only produce smaller and smaller root systems, until eventually there isn't a root system at all just a dead plant! Finally, when setting up an aquarium with plants, picture the amount of plant growth you expect to see during the following few months and leave the appropriate amount of space between plants to account for this growth. If the tank looks bare, place a few rocks between the plants and remove them as the plants grow.

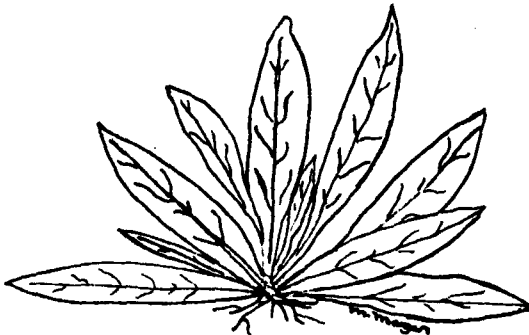
In summing up, I would like to offer a couple of suggestions when buying plants. First of all never buy a plant unless you know its requirements! However, if you are like most people and occasionally get the impulse to buy an unfamiliar plant, follow this general rule: The plants with lighter colored leaves require more light than plants with red or dark green leaves.

If you are fortunate enough not to be an impulse buyer you shouldn't run into the next problem. Have you ever noticed that some of the aquatic plants you see in the pet stores look very similar to some of your house plants? Well, they probably are! Many of the plants you see today are not true aquatic plants, but are actually bog plants and even land plants and do fairly well in underwater conditions for a short period of time, after which they die away leaving you no choice but to go out and buy some more. Finally, when purchasing your plants, look at the root system rather than the leaves. If the roots are white and there are many of them, the plant is in good shape even if a few of the leaves are wilted. Don't buy plants when the root systems have turned to a brown mush, even if the leaves are perfect; it will take a long time for it to recover if indeed it recovers at all.

I hope what I have said will be helpful. Good luck in the other half of the hobby.

reprinted from "Fin Fare", Victoria Aquarium Society, Canada

ed. note- hopefully this article has stimulated some interest in plants in some of you. I have a number of reprints on plants that will be appearing over the next few months. This should give some of you some help in getting started in the H.A.P. program and sending me some original articles on plants. J.M.



INFORMATION WANTED

Recently I was contacted by Jare Sausaman, a fellow member of Collectors of Aquarium Literature (CAL). Besides the national publications such as T.F.H. , FAMA, etc, Jare also collects many club publications. Upon hearing that I was the editor of Delta Tale he wrote to me requesting information on Delta Tale's history. Since I have only been a P.V.A.S. member for about four years I wasn't able to supply him with much. I am therefore asking for help from some of the long time members. I am looking for information such as: past editors of Delta Tale, any months it was not published or two months were combined, did the Potomac Valley Guppy Club put out a publication prior to Delta Tale, past presidents, etc. etc. In other words anything and everything I can get my hands on.

Besides passing this information on to Jare I am also curious about it myself. If I can get enough information I would like to write an article for Delta Tale on the history of our club. I believe that many of our newer members would be interested in finding out about our past. I would also like to write an article on the Delta Tale portion for CAL to provide its members with information and perhaps to get more of them interested in our publication.

Anyone who can supply any information at all please contact me. Thank you.

John Mangan, editor

DID YOU KNOW*

* to find the gallon capacity of a rectangular container multiply the length x width x height in inches and divide by 231.

* one gallon of water weighs about 8 pounds.

* Jim Long has a twin brother, look at the cover of the January issue of T.F.H.

* young fish and small fish use more oxygen per unit of body weight than do large fish. Fat fish use more than thin fish of the same type.

* cold water holds more dissolved gases than warm water. This is why when you first fill up a tank with tap water bubbles form on the sides (as the water warms they come out of solution). When making water changes in the winter it is a good idea to let the water get up to room temperature before adding it to the tank. The excess of dissolved gases in the cold tap water can be harmful to your fish.

MONTHLY BOWL SHOW AWARDS

January 1984

CICHLIDS

New World Large

1st Frank Angilletta, G. brasiliensis
2nd no entry
3rd no entries

Rift Lake Mbuna

1st Mark Steele, Ps. lombardoi
2nd no entry
3rd no entry

Open

1st Nathin Manwaring, Kribensis
2nd Mark Steele, Kribensis
3rd Frank Angilletta, Blackchin Mouthbrooder

EGGLAYERS/LIVEBEARERS

Anabantoids

1st Nathan Manwaring, Malputta kretseri
2nd Frank Angilletta, Croaking Gourami
3rd Gerry Hoffman, Ctenopoma fasciolatum

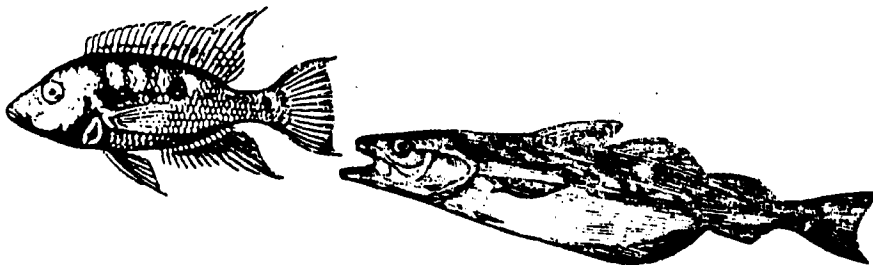
Catfish, Corydoras

1st Nathin Manwaring, C. pygmaeus
2nd Frank Angilletta, Green Hump
3rd Frank Angilletta, skunk cory

Open

1st Frank Angilletta, Royal Farlowella
2nd Frank Angilletta, Sailfin Molly
3rd Frank Angilletta, Whiptail Catfish

Members choice and Judges choice- Royal Farlowella, F. Angilletta



PVAS BOWL SHOW STANDINGS

	MONTH	QUARTER	ANNUAL		MONTH	QUARTER	ANNUAL
Frank Angilletta	10	10	10	Frank Angilletta	21	21	21
Mark Steele	10	10	10	Nathen Manwaring	13	13	13
Nathen Manwaring	6	6	6	Gerry Hoffman	6	6	6
Ray Krause	1	1	1	Alex Cummins	2	2	2
				Robert Rosser & Son	2	2	2
				Mike Rininger	1	1	1

I'd like to take this time to thank the judges for the excellent job they did. John Jessup for the judging of the Cichlids, John Mangan for the judging of the Egglayers/Livebearers.

I'd like to also thank everyone who brought their fish to the bowl show. This was a very good start for the year let's keep those fish coming so that we can have a very competitive season this year.

Next Months Bowl Show Category

Cichlids

New World Medium (4 to 7")
 Haplochromis
 Open

Egglayers/Livebearers

Guppies
 Barbs
 Open

Thank You For Your Support
 Chairman of the bowl show
 Frank Angilletta

BREEDER'S AWARD PROGRAM

<u>Name</u>	<u>Points</u>
Garland Neese	1,040 +++++
Gerry Hoffman	710 +++++
Pat and Maggi Mahoney	705 +++++
Darrell Holman	640 +++++
Woody Griffin	610 +++++
John Jessup	535 +++++
Vince Edmondson	500 +++++
Euth Brewer	305 +++
Jim Hajdics	275 ++
Art Lembke	165 ++
Wagner Family	165 ++
Kenny Warren	90 +
Amy Stirman	50 +
Roser Family	50 +
Alex Cummins	
Frank Angilletta	45
Ray Krause	10

++++ MASTER
 +++ ADVANCED
 ++ INTERMEDIATE
 + BREEDER

POTOMAC VALLEY AQUARIUM SOCIETY



POST OFFICE BOX 6219 SHIRLINGTON STATION ARLINGTON, VIRGINIA 22206

APPLICATION FOR MEMBERSHIP

DATE _____ 19 ____

NAME _____

STREET _____

CITY _____ STATE _____ ZIP _____

TELEPHONE CONTACTS H _____ B _____

Number of tanks _____ Time in hobby _____

Fish you have spawned _____

What can this club do for you _____

What do you want to do for the club _____

Which sub-groups of fish interest you _____

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

Please send application and check for dues to address above.

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

Potomac Valley Aquarium Society Meets on the Following Dates in 1984:

February 13	April 9	July 9	October 8
March 12	May 14	August 13	November 12
	June 11	September 10	December 10

Meetings are held at the Jefferson Fire House located just off Graham Road and Route 50 (Arlington Blvd.), Falls Church, Virginia. Please do NOT call the Fire House for information. See inside front cover for PVAS officers and phone numbers. All meetings open to the public and potential new members.