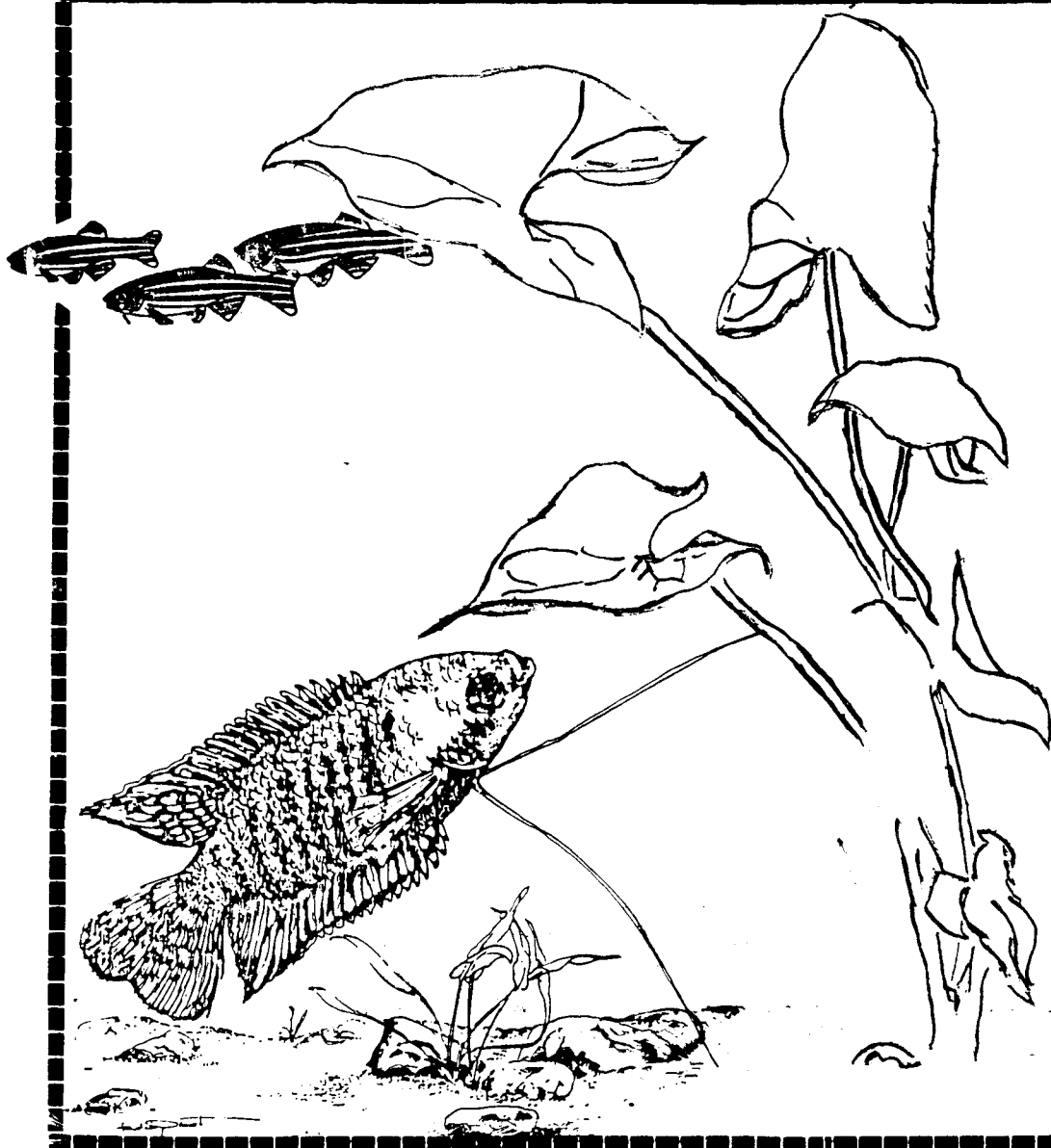


* DELTA TALE *

April 1986
vol. 17 # 4
50¢

OFFICIAL PUBLICATION OF

potomac valley aquarium society



POTOMAC VALLEY AQUARIUM SOCIETY



POST OFFICE BOX 6219 SHIRLINGTON STATION ARLINGTON, VIRGINIA 22206

Delta Tale is published for the benefit of the Potomac Valley Aquarium Society Inc., 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: PVAS, P.O. Box 6219 Shirlington Station, Arlington, VA 22206. Original artwork and articles may be reprinted by other non-profit organizations if credit is given to the author, Delta Tale, and PVAS. Two copies of the publication in which the reprint appears must also be sent to Delta Tale at the address above. Please place the authors name and/or "authors copy" on one of the copies to insure that it gets to him/her. PVAS and Delta Tale disclaim any responsibility for content or availability of advertised merchandise or services in these pages. Customer satisfaction is a matter to be worked out exclusively between the advertiser and the buyer. All material for inclusion in Delta Tale must reach the editor by the 20th of the month prior to publication.

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THE PREZ SAYS.....

06
Rick Bell's presentation at last month's meeting was truly outstanding. That it was well received was obvious from the number of questions asked by the members. It gave us a good insight into the source of the items we see offered for sale at our local shops. The only thing I didn't notice available at the three wholesalers visited were goodieds. Is this because the photographer purposely avoided them? Afterall, with his profession, I'm sure he prefers toothed carps over gummed goodieds.

For April Bob Pallansch suggested we have an open forum to discuss hobby related questions or problems for our "experts" to answer. Bring your pet pet questions on aquarium maintenance, plants, diseases, breeding, etc and someone will have THE authoritative answer, so help me Herbert Axelrod.

Things appear to be on track for the Spring Show. This has always been the highlight of our year when we get a chance to show off our best fish, get some choice finds at the auction and meet our judges and other aquarium people who have come from far and near.

I have to learn to write these columns earlier or have the Delta Tale printed in Hebrew so when the editor puts my words of wisdom at the end, it will be the beginning. (This is known as "goodied logic".) See you all in April. Keep spawning!

Bob

APRIL AT PVAS

Program: Fish talk free-for-all or Stump the PVAS Experts. Bring all your problems.

Bowl Show: David has lots of ribbons to give out. Cichlids: New World Mouthbrooders, Pseudotropheus, Open. Egglayers/Live bearers: Goldfish and Koi, Characins, Open.

Mini Auction: Good stuff. Lots of water sprite for everyone.

Raffles: New prizes. Bring lots of dollar bills. Pete has a new roll of tickets he's anxious to break out.

FROM THE EDITORZ DESK

Based on the response I got to last months column there is at least one person out there that is reading it . So for her benefit I will continue to try to write something new each month instead of recycling my old columns. Thank you for the kind letter, it really helped cheer me up.

This issue seems to be packed full of business type stuff. You can find all of the information on our spring show and auction in the center pages. John Jessup has sent in two pages of BAP stuff. Pat Gore gave me the march board of governors meeting minutes (actually she gave me the feb. minutes too but I thought that 4 pages of board minutes would be more excitment than most of you could stand). Bob Pallansch has sent in a page on the April meeting. Be sure you come prepared. Your participation will be necessary to make this a success. And last, but certainly not least, Mark Westling, our new librarian, has sent in the first installment of his new column. So that the general membership will better know what is available in the club library Mark will be reviewing selected articles from publications available to you through the club library. Due to all of this the Q&A and mirror columns had to be left out of this issue. They will be back next month though.

The spring show is coming soon so start getting those fish ready- make extra water changes, feed lots of good foods, etc. It's not too early to start planning. Next months issue of Delta Tale will be the annual show issue and will contain lots of information that you will find helpful in getting ready for the show and auction. I can hear Gerry groaning (and probably a few others too) at the thought of reading these articles again. However, this issue is for the benefit of all of our newer members and those who don't have show experience.

While I'm on the subject of shows- the White Rose Aquarium Society of York, PA will be holding their 8th annual show on April 17-20. For more information contact Joe Metzger or write to James Altland, (Show Chairman), 425 Nursery Rd. Wellsville PA 17365. Some people from this club usually come down and support our shows so lets try to return the favor (plus you'll have a good time).

Looks like President Bob's luck has held for another month. I was just getting ready to put this issue together when his column arrived. Is it a tradition for the President's page to be late? This is my 27th issue as editor and it seems like the Predident's page has been the last to arrive for every one. I'll have to ask some of the past Delta Tale editors if they had this same problem. They shouldn't be hard to find- there's a special section just for them at the local funny farm.

Until next month...



The April Program -- "ASK (STUMP?) THE EXPERTS"

Have you ever wondered, say, why you can't grow snails-- or can't get rid of them? Here's your chance to air your puzzles and problems before PVAS' "eminences grises" -- Rick Bell, Gerry Hoffman, John Jessup, Jim Long, John Mangan and Joe Metzger, just for openers. These folks know more than even they think (s'help me!), and just getting them started augurs a fascinating evening.

Here are a few seed questions -- or pop your own at the victim of your choice. (If any of the above-named fails to show up, you are officially authorized to harrass him at home -- at your own risk, of course.)

1. Which aquarium fishes have the longest life span? The shortest? How do you guess the age of fishes without dissecting?
2. Some salt is often recommended in freshwater aquaria. How much can plants stand? Snails? Crustaceans? Tadpoles?
3. Does tank size limit fish size? Does crowding? Can fishes be "bonsaied" (kept small) without affecting health or maturity?
4. Do the products of biological filtration provide a balanced plant food? Can harmful products build up? Does u.g. filtration inhibit growth of rooted plants?
5. Can any aquarium plants be coaxed to bloom underwater?
6. How do you groom fishes for showing?
7. What are the best times of year to introduce various "seasonal" plants and fishes?
8. Have you any little-known "secrets" of aquarium management? What has been your most frustrating single experience? Rewarding? Amusing?
9. Is a flounder compressed or depressed?
10. Are blackworms extinct?
11. Sure enough, why can't I grow snails?

As you see, nothing is too silly or elementary if it stimulates discussion and learning. I'll moderate if needed (and possible). See you there!

Bob Pallansch

Also the usual raffles, door prize, mini-auction, bowl show etc.

KILLIFISH "AQUARIA"--CHEAPER BY THE DOZEN

by George White

Anyone who has enjoyed spawning these fascinating little fish quickly realizes the need for a large number of small aquaria to raise the fry. Keeping several spawns or even all the members of the same brood together does not work as the larger fry tend to eliminate their smaller, later hatching brethren. Furthermore, the fry and often the females of different species are indistinguishable, making it impossible to later separate the species (and prevent accidental hybridization) if they are mixed together in the rearing aquarium. Most killie fiends have so many fish that regular aquaria do not provide a practical solution for the question "where do I keep all these fry?" Ten gallon aquaria cannot be effectively divided--the fry would invariably find any crack available to cross the barrier, and five gallon tanks cost too much to be used for a large number of spawns.

The solution popular with some of my killifish friends is to convert clear plastic shoe boxes from the local dime store into killie aquaria. These cost only about a dollar each and can be stacked together for easy storage. Furthermore, they are easy to move and clean.

The shoe boxes can be used without their lids for small fry, but larger fry and adults tend to unintentionally commit suicide by jumping out. Usually the specimens with the brightest color and best finnage--never the culls--jump.

All one needs to convert the shoe boxes into safe aquaria are: a sharp bladed handicraft knife like those sold by Exacto or Stanley; a pair of scissors; plastic screen (available at any hardware store); a nail; a pair of pliers; aquarium silicon cement; and a kitchen stove.

Any shoe box lid can be cut with the handicraft knife, but try to buy ones with softer, flexible lids since they are much easier to cut. First, cut out the center of the lid approximately an inch from the edge. (If you have purchased ones with clear plastic lids which tend to be brittle, you must either cut them with a handicraft knife heated over the stove or cut repeatedly along the line you wish to cut). Then use the scissors to cut a piece of screen just large enough to fit inside the lid with almost an inch of overlap all along the one inch edge you left. Next, heat up the nail over or on one of the stove burners holding it with the pliers and then use it to "drill" a hole for an airline in a convenient location in the lid (approximately half way between the large center cut-out and the edge). Finally, glue the screen on the underside of the lid to cover the large center cut-out. Let the cement dry at least 24 hours before using the aquaria.

PORTS PERDU
or
THE MAGIC CICHLID FAMILY

by Laurie Coltri

(Note: I am submitting this story in the memory of my friend, Pat Mahoney. I think everyone in PVAS must have called Pat their friend, because he was the kind of person who made friends wherever he went. I know he would have wanted us to contribute to the Delta Tale, and so I want to say good bye to Pat in this special way.)

They say that it is better to have loved and lost than never to have loved at all. This is the story of some cichlids who loved, got lost, and then got un-lost in some rather miraculous ways.

In 1982, I was keeping a pair of Aequidens Portalegrensis in a 29-gallon tank at my law office in Riverdale, Maryland. Mom and Pop Port were, well, a portly couple, easily exceeding four inches in length and full-bodied. They were the kind of fish who splash full cupfuls of water on the floor when enthusiastic at mealtime. The pair distinguished itself by keeping the office staff fascinated with the birth process, and the families who resided in the aquarium kept many a client's child absorbed while I did business with a human mom or dad.

One winter, Mom and Pop Port graced Riverdale with their first brood, around 500 gorgeous little fry. My husband Alan (a.k.a. The Fish Daddy) and I were at that time still beginner aquarists, and it was a real thrill to see the new babies rising up in their first swim. The doting human grandparents took extreme care to assure that the new family was fully supplied with first foods, even though this meant constant trips to Riverdale, in all kinds of weather, on weekends and holidays.

We were rewarded with explosive growth in the fry (not to mention Mom and Pop, who became ever bigger and more rotund). Very early on it became evident that 500 rapacious and growing fry would not long survive in a 29-gallon tank. So one Saturday afternoon I went to Riverdale, bailed about half of the 3/4-inch fry into a bucket, placed the bucket on the front passenger seat of my Mazda GLC, and started home.

Getting home involved a trip on the Baltimore-Washington Expressway. Everything was going fine until I came to a difficult curve on the on-ramp. In trying to maintain control on the curve, I caused the car to lurch sideways, which in turn caused about a quart of water from the bucket to slop out. To my abject horror, some 100 fry were launched out onto the upholstery.

Well, my first impulse was to slam on the brakes, but traffic was heavy. Moreover, I was on a freeway, and I had only recently represented a gentleman in court who had been charged with unauthorized stopping on the Expressway, and besides, how could the fry have survived such trauma? I steeled myself and decided that I would not be able to save the fry (many of whom had started to work themselves down into the crack between the back and seat of the passenger seat, thus becoming unreachable). I continued to drive.

It was a warm day and the struggling, hapless fry slowed. It looked to me as if they were drying out. Remorse gripped me. It seemed to be too late, but I decided to save the ones I could.

I brushed back tears, pulled over to the shoulder and stopped. With thumb and two fingers, I picked up a baby who still seemed wet enough to have a chance, and gently returned him to the bucket. As he hit the water,

the baby fish gave a little jerk, then swam off as if nothing had happened. I started picking up more of the castaways who seemed to have a chance. They recovered immediately. Gaining confidence, I began to go after fish in worse and worse condition. The amazing thing was that even the fry who had been out of water for 15 or 20 minutes responded no differently. I was able to recover every single baby. Even the fish whom I found, gummy and stiff and coated with grime, wedged into the seat, survived unscathed.

If I had any doubts about the magical properties of Ports after that event, I was soon dispossessed of it. Some time later, I left the Riverdale office for good, and had to move the tank, and its many occupants, back home. The Fish Daddy and I chose a quiet weekend to do the job. We mustered all the towels and buckets we could carry, hopped into the car, and drove to the office. Despite our planning, there weren't enough buckets in which to put all the aquarium sand, plus all the Ports (which at that time numbered in the multiple hundreds). So The Fish Daddy filled each of the buckets with about six inches of sand, poured a couple of inches of water in over the sand, and loaded the buckets with fish. They turned a little pale, but didn't seem to mind much.

The Fish Daddy and I hustled about the area, siphoning water, disconnecting filters, cleaning slime off accessories, and so forth. Passing by the bucket containing Mom and Pop I half-attentively glanced inside, and immediately became alarmed. It no longer exhibited fish, only water and sand. The Fish Daddy and I panicked. Mom and Pop must have jumped out of the bucket while we weren't looking. Somewhere two great fish friends were drying out on a rug. But where? We combed the office floor from head to toe. No Ports. Disgusted, I thrust my hand into the bucket of sand in a gesture of defeat. But about four inches under the surface of the sand, I encountered something hard and massive. There was a Port, lying on its side, buried in the sand. And then a second fish, next to the first. My panic grew. We had buried the poor fish alive! How could we have missed noticing that we were pouring all that sand over two five-inch adult Ports? Ruefully, we gently lifted each fish (which as far as we knew were nothing but corpses at that point) out of the sand. Lo and behold, after a moment or two of disorientation, the Ports came to their senses and seemed none the worse for wear. Whew!

Well, we continued with moving, a little shaken, a little pensive, a lot relieved. But as we moved about the office, The Fish Daddy happened to bump up against the bucket containing Mom and Dad Port. Coincidentally, we were both staring into the bucket to see what happened next.

In the blink of an eye, both fish did a 90 degree roll to the side, coming to rest flat on the surface of the sand like flounders. In the next instant, each Port began to vibrate vigorously. Almost before we could register what was happening, both fish dropped out of sight. An investigation revealed that they were again about four inches below the surface of the sand, lying on their sides, and were perfectly fine.

It seems that the Ports were utilizing some kind of ancient escape routine, and that they had gone down deliberately (if you can call anything a fish does "deliberate"). We have told this story to many hobbyists, and after getting the desired surprised reaction, we have been told that the hobbyist has observed or heard of this kind of behavior in certain flat-fishes, but never in Ports.

Mom and Pop Port were subsequently given to the late Pat Mahoney for a happy destiny in his Aequidens habitat. The fry were sold or given away to various people and pet shops in the Washington, D.C. area. But the Fish Daddy and I fervently hope that wherever Mom, Pop and their descendants go, they grace their human friends with the same magic which they bestowed on us.

TRADING POST

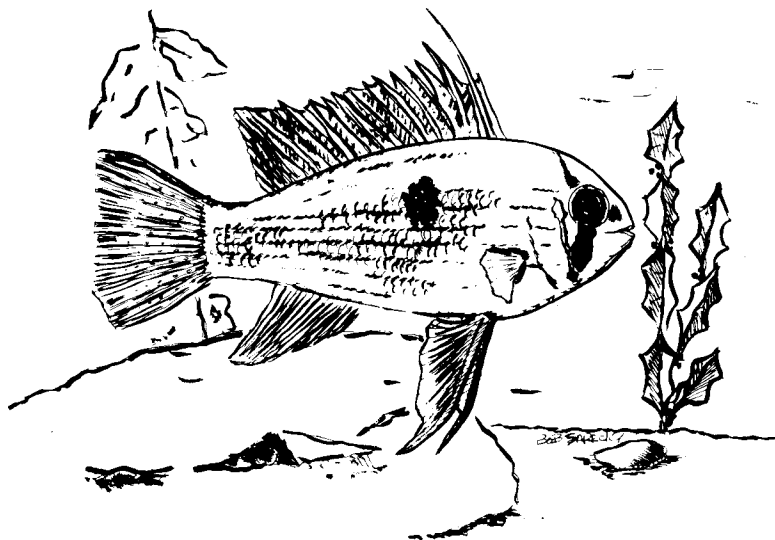
Ads for the trading post should be sent to Delta Tale c/o John Mangan, 9770 Oleander Ave. Vienna VA 22180 by the 20th of the month prior to publication.

For Sale: Item 1- 35 gal. tank, includes light & glass top;
Item 2- 35 gal. tank, includes light & glass top;
Item 3- 40 gal. tank (leaker) can be repaired, bestoffer;
Item 4- Home Made Stand, made w/cinder blocks, plywood
& two by fours, painted white with exterior
paint. Will hold up to one 60 and one 55 gal.
Sell all or in part by item only. Ask for Gerry Goetz
at 727-5770 ext.13 between hrs. 7:00am 3:30 pm weekdays.
Serious inquires only.

For Sale: 20 gal. inc. hood; 250w Ebo-Jager heater (hardly used);
200w ECL heater (hardly used). Contact DAVID Sun, 941-5116.

Want: Allotoca spp.; Zoogoneticus spp.; Allodontichthys spp.;
Xenotoca melanosoma; female Iriatherina wernerii (red tail strain)
For Sale/Trade: Xenotoca eiseni; Chapalichthys encaustis; C. pardalis;
Xenoporphus captivus.

Buy/Sell/Trade: old aquarium books and magazines.
Contact John Mangan, 9770 Oleander Ave, Vienna VA 22180,
or see me at the monthly meeting.



PVAS LIBRARY

Mark Westling

The PVAS library collects materials sent to us by other clubs. The following are synopses of some of the more interesting articles we have received recently. Anyone can borrow these publications; either call me (home: 445-1792, work: 454-5858) or talk to me at a monthly meeting, and I'll bring the reports to the next meeting.

THE DAPHNIAN, Boston Aquarium Society, January 1986.

Gordy Brown, "Strolling through the years with George Meserve."

The Boston Aquarium Society begins its 70th year of continuous operation in 1986, and Gordy Brown presents the first of a multi-part history of the Society, condensed from a series of nineteen monthly articles written by George and Frieda Meserve in 1973. One year after its organization in 1916, the B.A.S. had 59 members, \$1.31 in the treasury, and their first show. The first auction was held in 1918, and in 1920 they started awarding bronze medals to the winners of their monthly bowl shows. Gold, silver, and bronze medals were awarded at the annuals shows. All this with annual dues of \$2.00...

Ken Torman, "When the lights go out."

Inspired by Hurricane Gloria, this article gives several suggestions for dealing with power failures. For short outtages (e.g. when a squirrel climbs into a transformer down the street), block all sources of drafts and don't feed the fish. For something longer (e.g. a hurricane), change 70-80% of the water, stop all feeding, separate aggressive fish or imminent spawners (to reduce stress), and switch off all lights on the tanks and in the room for when the power does return.

THE REPORTER, North Jersey Aquarium Society, January 1986.

Chuck Davis, "A bandit goes to sick-bay."

Bandit, an eleven-year-old Red Devil, developed clamped fins and a whitish-gray slime over its body after missing several water changes. The diagnosis was *Epistylis*, a parasite. Bandit was moved to a sixty gallon tank, with the temperature set to 84 degrees F and $\frac{3}{4}$ cup aquarium salt added to the water. His appearance returned to normal in two days, after a dosage of Paragon I, and his appetite came back a few days later.

Sally Van Camp, "*Anubias nana*" (AHAP report).

Anubias nana is a slow-growing, attractive plant from Africa. Leaves are dark green and shiny with a leathery texture. The plant does well in temperatures around 78-80 degrees F with average to high light. It seems to be resistant to most snails as well as many "traditional" plant-eating fish. Moving *A. nana* from an established location will retard its growth even more. A flower stalk emerged two months after purchasing the plant. It grew until it was about an inch beneath the surface of the water, and there it remained for about two weeks until the flower began to open. It took ten more days for the white flower to completely open, and it remained for four months. After the stalk and flower deteriorated, the plant underwent a spurt of growth and quickly doubled in size.

Brian Newman, "The seven dwarfs — Part I."

Not all cichlids are large, vicious, with insatiable appetites and a dislike for plants! Dwarf cichlids will thrive in small tanks and prefer dense plant cover. Spawning is not difficult, given the right conditions. In general, dwarf cichlids are not fussy about hardness, pH, or food. The author keeps his fish (currently a pair of *Nanacara anomala*) in a heavily planted ten-gallon community tank, with pH around 7.6 and temperature at 76 degrees F. Spawnings occur at least once a month in a small glass jar embedded in the sand. Three methods are given for raising the fry in this situation: (1) the other residents of the tank can be removed immediately after the spawning; (2) the fry can be siphoned out of the nest; or (3) the eggs can be removed and hatched away from the parents.

SAND PAPER, Singing Sands Aquarium Society, Michigan City, Indiana.

Ed Marcisz, "Najas."

Here's how the author describes this plant:

Najas looks like long, skinny Anacharis, only uglier. It puts out a few white roots that are several inches long anywhere along the length of the strand. It seems to grow mostly as a single strand, but will occasionally branch into a second. Rather than growing straight, it grows in long, loose swirls. Najas is a floating plant, sort of. I would describe it as sort of a "hanger." It doesn't float in the typical sense, and it looks a little wild and unruly.

Interested? It grows well at temperatures from 68 to 82 degrees F, with 12 to 14 hours a day of full-spectrum lighting. Water quality is important, as the plant will rot in tanks with heavy fish populations and frequent feedings. With frequent water changes, Najas is an ideal plant for livebearer tanks.

The author also states that his Discus like to eat it.

Gordon Moats, "*Microgeophagus ramirezi*, the butterfly cichlid" (BAP report).

This BAP report describes an accidental spawning of Rams in a dwarf cichlid community tank. The temperature was 78 degrees F; no other water conditions were given. The eggs were laid on a rock which was moved to a five gallon tank, empty except for a sponge filter. Six drops of methylene blue were added, and the temperature was raised to 82 degrees F. The eggs hatched after three days, and the fry were free-swimming four days later. After several days of microworms, the Ram fry were switched to newly hatched brine shrimp. At six months of age, the 180 surviving fry were about an inch long and just starting to show color.

Darrell R. Ullisch, "An aquarist's dream: The peacock gudgeon."

The peacock gudgeon, *Tateurindina ocellicauda*, is brightly colored, a good community fish, and easily sexed and spawned. A pair was kept in a ten gallon tank with some flower pots at 80 degrees F. Within a week the fish had laid 50-75 eggs inside one of the flower pots. At that time, the female became noticeably thinner and the male ceased chasing her, preferring to stay inside the flower pot. The eggs were moved to an empty filter box three days after the spawning. The box was hung inside the tank to maintain a warm temperature. An airstone was positioned so bubbles played directly on the eggs. One day later they began hatching, and after three more days the fry were free-swimming. The fry will feed immediately on either microworms or brine shrimp.

Darrell R. Ullisch, "What's in a name?"

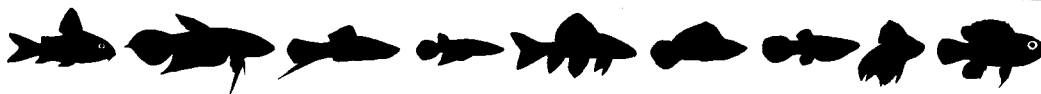
This article is an excellent introduction to scientific classification and how it applies to aquarium fish. Starting with the kingdom (animal), the author works his way down to species and subspecies. Most aquarists feel comfortable with these last two terms, but how many of us would know that Anabantoidei is a suborder while Cichlidae is a family? And what exactly is the difference between a suborder and a family? For that matter, how many would say "genera" as opposed to "genuses?" The article is concise, well-written, and easily read.

ALL CICHLIDS, Michigan Cichlid Association, January 1986.

Delores Schehr, "*Lamprologus mocquardi*: the riverine Lamprologus."

L. mocquardi is a species of *Lamprologus* that doesn't come from Lake Tanganyika, but rather from the Congo River. The males reach about 3 $\frac{1}{2}$ to 4

DOTOMAC VALLEY AQUARIUM SOCIETY



POST OFFICE BOX 6219 SHIRLINGTON STATION ARLINGTON, VIRGINIA 22206

26th ANNUAL SPRING SHOW & AUCTION

16 - 18 May 1986

Falls Church Inn, 6633 Arlington Blvd. (Rt. 50), Falls Church VA 22042

SANCTIONED BY ACA, ALA, FAAS

SCHEDULE

FRIDAY, May 16:

6 PM to 9 PM - Early Registration of Show Entries.

SATURDAY, May 17

9 AM to Noon - Registration of Show Entries.

1 PM to 5 PM - Judging [Only judges and designated show committee personnel will be allowed to remain in the Show Area.]

5:30 PM to 8 PM - Public View of Show Entries

SUNDAY, May 18:

8:30 AM to 1 PM - Open to the Public (The public is cordially invited to remain for the awards presentation and auction.)

9 AM to 12:30 PM - Registration of sale items for the Auction.

11 AM - Presentation of Awards

11:30 AM - Auction [The auction will continue with suitable breaks until all items are sold.]

There is no admission charge for the public viewing or the auction.

RAFFLES - RAFFLES - RAFFLES

Aquarium-related items will be raffled off at intervals during the auction. You must be present to win these prizes. As a Grand Finale, a 55-gallon tank set-up will be raffled off at the end of the auction. You need not be present to win this prize.

Tickets for both raffles may be purchased at any time during the show and auction at the concession stand.

Soft drinks, snacks, and souvenirs will be on sale.

COMPETITION CATEGORIES

(All classes, except Dealer Tanks, are open to public competition.)

I. Livebearers

- a. Delta Tail Guppies, Male
- b. Delta Tail Guppies, Female
- c. Guppies, All Other
- d. Mollies
- e. Swordtails
- f. Goodeids
- g. Other Livebearing Fishes

II. Egglayers (Non-Cichlid)

- a. Catfish, Corydoras
- b. Catfish, African
- c. Catfish, All Other
- d. Betta splendens
- e. All Other Bettas & Anabantoids
- f. Sharks and Loaches
- g. Tetras
- h. Barbs
- i. Goldfish & Koi
- j. Danios, Brachydanios, Rasboras
- k. Killifish
- l. North American Native Fishes
- m. Other Non-Cichlid Egglayers

III. Cichlids

- a. New World Large (Over 7" Mature)
- b. New World Medium (4" to 7" Mature)
- c. New World Dwarf (Under 4" Mature)

III. Cichlids(Continued)

- d. Angelfish
- e. Rift Lake, Malawi
- f. Rift Lake, All Other
- g. Discus
- h. Non-Rift Lake African
- i. Cichlid Pairs
- j. Other Cichlids

IV. Marine

- a. Fishes
- b. Invertebrates

V. Family of Fishes

VI. Plants

VII. Set Tanks

VIII. Dealer Tanks

IX. Photography

- a. Photographic Slides
- b. Photographic Prints

X. Art

- a. Frameable Art
- b. Crafts

THE FOLLOWING APPLIES TO ALL ENTRIES

Once entered in the competition, no entry may be removed until after the Awards Ceremony on Sunday without the consent of the Show Chairman. All entries must be picked up by 6 PM, Sunday, 18 May, or they will be disposed of at the discretion of the Show Chairman. All entries must be accompanied by an entry form. For your convenience, an entry form is attached to this flyer. There will be qualified hobbyists available to assist you in classifying your entries.

PVAS can assume no liability for any of the entries, but at least one qualified hobbyist will be on duty at all times during the show to assure the safety and well being of the fish and to prevent theft or other damage.

AWARDS

Trophies will be awarded for Best in Show (Classes I through IV); Reserve in Show (Classes I through IV); Best in Class (Classes I through IV); and for First Place in each sub-category of each class (Classes I through IV, IX, X) and First Place in categories V through VII. Ribbons for Second and Third Place in each sub-category of each class. Dealer's Rotating Trophy for Class VIII.

INFORMATION

For additional information, please call Mr. Robert Pallansch, Show Chairman, (703) 532-0137 weekdays between 6 PM & 9 PM and weekends between noon and 4 PM.

POTOMAC VALLEY AQUARIUM SOCIETY, INC.

The Potomac Valley Aquarium Society was founded in 1960. It is a non-profit organization incorporated in the Commonwealth of Virginia. The sole purpose of the PVAS is the pleasure of hobby and the recreation that comes from association with fellow hobbyists. PVAS would like to invite you to join as a member and participate in the numerous programs and activities associated with the society. Please fill out the form below and hand it to one of the members at the registration desk or mail it to the PVAS at the address shown on the front of this flyer. You will be contacted.

APPLICATION FOR MEMBERSHIP

DATE _____ 19__

NAME _____

STREET _____

CITY _____ STATE _____ ZIP _____

TELEPHONE (HOME) _____ (OFFICE) _____

Occupation _____ Number of Tanks _____ Time in Hobby _____

What PVAS can do for you? _____

What do you want to do in PVAS? _____

What part of the hobby interests you? _____

Have you ever belonged to another fish club? _____

If yes, which one? _____

Did it have a Breeder's Award Program? _____ Did you participate? _____

Membership dues for the Potomac Valley Aquarium Society are:

Family	\$12.00	Corresponding	\$7.00
Individual	\$10.00	Junior (under 18)	\$5.00

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Date: _____

Address: _____ **Phone:** _____

City: _____ **State:** _____ **Zip:** _____

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THANK YOU FOR ENTERING AND GOOD LUCK!

SHOW RULES

Competition is open to anyone.

For Classes I through VI.

Tanks, Other Containers and Stands: All tanks, drum bowls, and stands must be furnished by the entrant. All containers must have at least two clear, flat sides. Tanks in excess of 5 1/2 gallons must be accompanied by a stand. An air pump, filtration, light and extension cord should be brought for each tank larger than 5 1/2 gallons as they may have to be placed at some distance from the PVAS-supplied air source.

Decorations and Lighting: No decorations of any kind, including back or bottom painting, or gravel will be allowed in Classes I through V. Only tanks on stands may be provided with entrant-furnished lighting. No plants may be added to any Class I through V entry.

Air, Heaters, and Filtration: The PVAS air system will furnish a constant supply of air for all drum bowls and small tanks. Entrants will furnish their own airline and air stones. (A supply of airline and air stones will be on sale at the concession stand.) Box filters or outside filters will be allowed in all classes at the entrant's discretion. In Class IV, undergravel filtration may be used, but the tank must otherwise be bare. Heaters are allowed in all classes.

Class V (Family of Fish): An acceptable entry consists of a breeding pair of adult fish and their fry. The fish may be displayed in a single container, a divided container, or separate containers.

Class VI (Plants): An acceptable entry consists of a single species of any recognized aquatic plant displayed in a single container or several individual species may be displayed as separate entries in a compartmented container. A rooted plant may be displayed in a pot or floating. No gravel or other planting medium is allowed on the bottom of the container. No fish or other fauna may be added to a Class VI entry.

Classes VII & VIII (Set Tanks): Entries may represent either fresh or marine environments and may be stocked and decorated as desired. These tanks will be judged on the overall appearance of the contents. The external appearance of the tank will not be judged. All equipment will be supplied by the entrant. (It is suggested that time be allocated to finish setting up the entry no later than noontime, Saturday.)

Classes IX & X (Photography & Art): Entries will be accepted by mail provided the entry is mailed to PVAS, PO Box 6219, Shirlington Station, Arlington, VA 22206, to arrive no later than noon Friday, 17 May. The entry fee must be enclosed. Entries will be returned only if a stamped, self-addressed container is enclosed. Art entries must consist of a non-photographic representation of fresh or marine fishes or their associated environments. Judging of photography will be based primarily on composition and technique. Art entries will be judged on originality, design, and overall artistic merit. Entries in Classes IX & X are expected to be the work of the entrant. If desired, entries may be titled but may not display the name of the entrant.

Judging: All entries will be judged equally by established PVAS standards. If an unbreakable tie occurs, duplicate awards will be made. In all cases, the decision of the judges will be final.

SHOW ENTRY FEES

Single Fish - \$2.00 (A female may be added but will not be judged.)
Pairs & Family Entries - \$2.00
Plants - \$1.50
Set Tanks (Non Dealer) - \$2.00
Dealer Tanks - No Charge
Slides and Prints - \$1.00
Artwork - \$1.50

COMPETITION CATEGORIES

(All classes, except Dealer Tanks, are open to public competition.)

I. Livebearers

- a. Delta Tail Guppies, Male
- b. Delta Tail Guppies, Female
- c. Guppies, All Other
- d. Mollies
- e. Swordtails
- f. Goodeids
- g. Other Livebearing Fishes

II. Egglayers (Non-Cichlid)

- a. Catfish, Corydoras
- b. Catfish, African
- c. Catfish, All Other
- d. Betta splendens
- e. All Other Bettas & Anabantoids
- f. Sharks and Loaches
- g. Tetras
- h. Barbs
- i. Goldfish & Koi
- j. Danios, Brachydanios, Rasboras
- k. Killifish
- l. North American Native Fishes
- m. Other Non-Cichlid Egglayers

III. Cichlids

- a. New World Large (Over 7" Mature)
- b. New World Medium (4" to 7" Mature)
- c. New World Dwarf (Under 4" Mature)

III. Cichlids(Continued)

- d. Angelfish
- e. Rift Lake, Malawi
- f. Rift Lake, All Other
- g. Discus
- h. Non-Rift Lake African
- i. Cichlid Pairs
- j. Other Cichlids

IV. Marine

- a. Fishes
- b. Invertebrates

V. Family of Fishes

VI. Plants

VII. Set Tanks

VIII. Dealer Tanks

IX. Photography

- a. Photographic Slides
- b. Photographic Prints

X. Art

- a. Frameable Art
- b. Crafts

THE FOLLOWING APPLIES TO ALL ENTRIES

Once entered in the competition, no entry may be removed until after the Awards Ceremony on Sunday without the consent of the Show Chairman. All entries must be picked up by 6 PM, Sunday, 18 May, or they will be disposed of at the discretion of the Show Chairman. All entries must be accompanied by an entry form. For your convenience, an entry form is attached to this flyer. There will be qualified hobbyists available to assist you in classifying your entries.

PVAS can assume no liability for any of the entries, but at least one qualified hobbyist will be on duty at all times during the show to assure the safety and well being of the fish and to prevent theft or other damage.

AWARDS

Trophies will be awarded for Best in Show (Classes I through IV); Reserve in Show (Classes I through IV); Best in Class (Classes I through IV); and for First Place in each sub-category of each class (Classes I through IV, IX, X) and First Place in categories V through VII. Ribbons for Second and Third Place in each sub-category of each class. Dealer's Rotating Trophy for Class VIII.

INFORMATION

For additional information, please call Mr. Robert Pallansch, Show Chairman, (703) 532-0137 weekdays between 6 PM & 9 PM and weekends between noon and 4 PM.

POTOMAC VALLEY AQUARIUM SOCIETY, INC.

The Potomac Valley Aquarium Society was founded in 1960. It is a non-profit organization incorporated in the Commonwealth of Virginia. The sole purpose of the PVAS is the pleasure of hobby and the recreation that comes from association with fellow hobbyists. PVAS would like to invite you to join as a member and participate in the numerous programs and activities associated with the society. Please fill out the form below and hand it to one of the members at the registration desk or mail it to the PVAS at the address shown on the front of this flyer. You will be contacted.

APPLICATION FOR MEMBERSHIP

DATE _____ 19__

NAME _____

STREET _____

CITY _____ STATE _____ ZIP _____

TELEPHONE (HOME) _____ (OFFICE) _____

Occupation _____ Number of Tanks _____ Time in Hobby _____

What PVAS can do for you? _____

What do you want to do in PVAS? _____

What part of the hobby interests you? _____

Have you ever belonged to another fish club? _____

If yes, which one? _____

Did it have a Breeder's Award Program? _____ Did you participate? _____

Membership dues for the Potomac Valley Aquarium Society are:

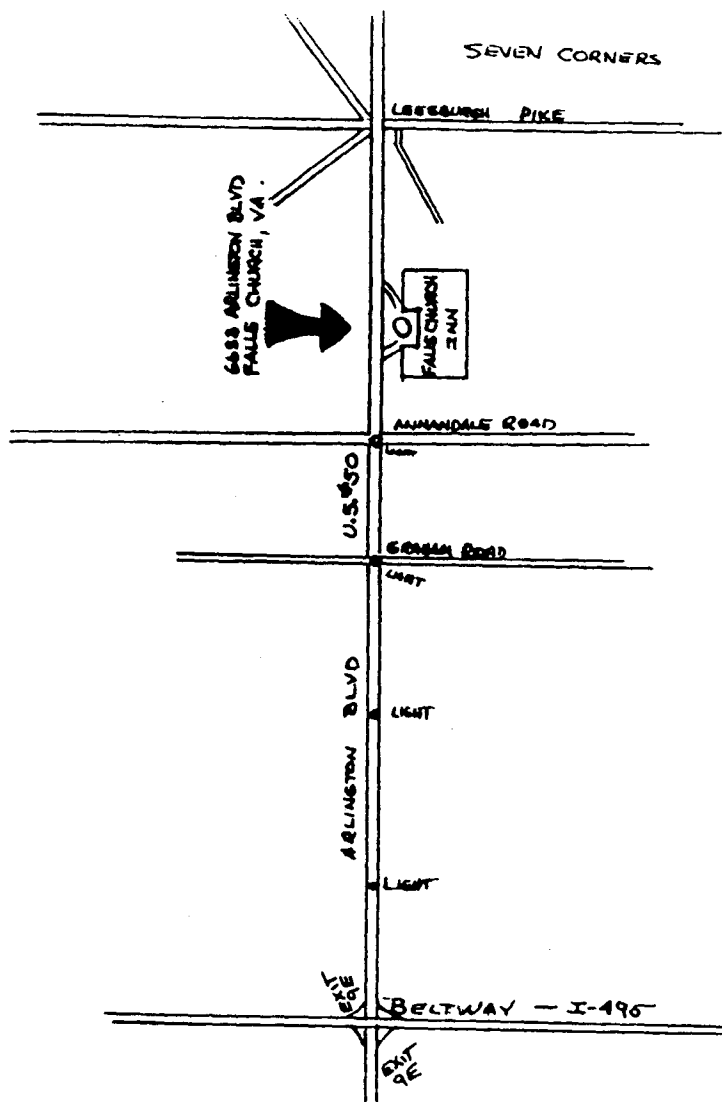
Family	\$12.00	Corresponding	\$7.00
Individual	\$10.00	Junior (under 18)	\$5.00

HOW TO GET TO THE SHOW AND INFORMATION ON MOTEL RESERVATIONS

This year's show will be held in the **FALLS CHURCH INN**. This is a very fine **BEST WESTERN MOTEL** located at 6633 Arlington Blvd. (Rt. 50), Falls Church, Virginia. Rooms are available at a special PVAS rate of \$39 for Singles, and \$42 for Double rooms. Those desiring reservations should call the motel at (703) 237-0530 as soon as possible. Be sure to mention PVAS and the Spring Show!

LOCATION BOTH EVENTS

Falls Church Inn, 6633 Arlington Blvd. (Rt. 50), Falls Church, Virginia 22042



inches, and the females stay around 3 inches. Adults are a dark bluish-purple, with iridescent marks under the eyes and several shiny spangles in the fins. Males develop a small cranial hump. Several fish were housed in a thirty gallon tank with *L. pleuromaculatus* and some conch shells. A pair spawned unnoticed inside one of the shells, and the fry grew up unmolested by any of the other fish in the tank.

SWAM, Southwest Michigan Aquarium Society, ~~January 1986~~. Ser/Oct 85

Vickie L. Coy, "*Hemmigrammus caudovittatus*: Buenos Aires tetra, a hardy tetra" (BAP report).

One male and three females spawned in a black killie mop in a ten gallon tank, with the temperature at 80 degrees F. The tank used undergravel filtration. The morning after the fish were introduced to the tank, the mop was found to be covered with tiny adhesive eggs. It was then moved to a five gallon tank, where the eggs hatched in one day. The fry were fed Interpet Liquidfry #1 about two to three times a day. After about five days of free swimming, they were switched to Sanders Baby Brine Shrimp. The 178 fry grew to about 1 ½ inches in sixty days.

Pat Hartman, "*Pseudomugil gertrudae*: the stock tank approach."

P. gertrudae is one of the smaller species of rainbowfish, females reaching about 25 mm., males 20 mm. These fish were spawned in two floating nylon killie mops in a three gallon tank. Fry were fed microworms followed by brine shrimp. The older fish ignored the newly hatched fry which hatched and were left in the tank.

Pat Hartman, "*Nothobranchius korthausae* red: wet and dry, we gave them a try."

N. korthausae is a soil spawning killie native to areas near the Ivory Coast in Africa. The fish is known in both yellow and red color morphs. The typical killie soil spawning procedure was used successfully: a dish of peat was provided to the pair, dried and stored for three months after the spawning, and then rewetted with distilled water. Fry hatched within 24 hours, and were fed microworms and brine shrimp. The article goes on to describe an unconventional method of incubating the Notho fry. Nylon spawning mops replaced the peat. Eggs picked from the mops were incubated in a petri dish containing softened water. The fry hatched in six days and were transferred to a margarine tub and fed microworms like any other mop-spawning killie. At this time, a spawning of peat-incubated fry were hatched and raised side by side with the water-incubated fry. No differences were noticed in growth rate, sex ratio, or any other visible traits. The author emphasizes that the softened water was a mixture of deionized and commercial softened water stored in a twenty gallon container over peat moss and oak leaves.

March 3, 1986 Board of Governors Meeting

The meeting was called to order at the home of Bob Pallansch at 7:40 pm. In attendance were Ray Hughes, John Mangan, Amy and Jerry Stirman, Gerry Hoffman, Bob Roser, Mark Westling, Pat Gore, and Bob Pallansch.

Pat Gore passed out copies of the revised 1986 Roster. Copies will be available to all members beginning with the March monthly meeting and will be revised on a quarterly basis. A new column has been added to the roster to reflect type of membership, and it immediately follows the membership renewal date. The New Member / Renewal letter has also been revised. A copy was provided to the Board members for their information. Renewal notices have been sent out through February. Pat also looked into the possibility of moving the post office box to Clarendon Central Station which has access 24 hours daily. The post office in Shirlington has not been available 24 hours due to construction in the area. The post office expects to be moving to another temporary location in Shirlington in May. It is not known at this time whether or not access to the new facility will be 24 hours. Pat will wait until the move takes place to determine whether any further action is necessary.

Gerry Hoffman has filed a 6-month extension with IRS for processing paperwork associated with the tax exemption status. PVAS currently has a Corporate status and will be liable to file a corporate tax return for 1985. This may be waived after the tax exemption status is received since it was filed for in 1985.

Gerry reported \$1530.00 in the treasury. All bills received are paid to date.

Programs for both March and April have been arranged. Mark Westling agreed to pursue a program by the National Aquarium in Washington, DC to be given in the near future. Mark also agreed to investigate a program which would be presented by a diver or someone from a dive shop. With the show and auction approaching, it was determined by the board that a program on how to get fishes to the show alive and healthy would be a good idea. The board agreed that the person best qualified to give this talk would be John Jessup.

John Mangan, editor, reported that the Delta Tale might be late this month due to unique personal problems experienced by the printer. John also reported that he has submitted articles from the Delta Tale for a FAAS publications award.

Ray Hughes reported that pet shop owners are pleased to see their cards printed in the Delta Tale. The Board would like to make available to members a list of pet shops that give a discount to PVAS members. If anyone knows of any, please give the name of the pet shop to Pat Gore. She will publish the list and make it available to members. The list currently includes the following pet shops:

Creatures & Critters - dry goods only
Ocean Images
Pet Market (at Twinbrook)

Mark Westling reported that all items have been sorted for the library, and he is now ready to prepare a general index for club members. He is currently looking for a program that already has this information prepared. Club members do not know

what is available from the library. To assist members, Mark agreed to review selected articles and prepare a one or two line writeup for the Delta Tale. He will also bring those articles to the club meetings.

The Board then turned it's attention to show business. The show date will be May 16 - 18. 5 judges have been secured. They are Dave Herlong, Dave Shaw, Cathy and Ed Taylor, and Gerald Pottern.

Bob Pallansch has submitted information about the show to FAMA magazine. He also found out that the Fairfax Journal, Alexandria Gazette, Washington Post, and WETA and WGMS radio stations will either carry ads or announce the show free. Mark Westling, who has had past experience, agreed to prepare a press release for the local TV channels and include both the Washington and Baltimore areas.

Bob has also prepared a sign-up sheet for the show and auction called the "Honor Roll". It will be available at the March meeting.

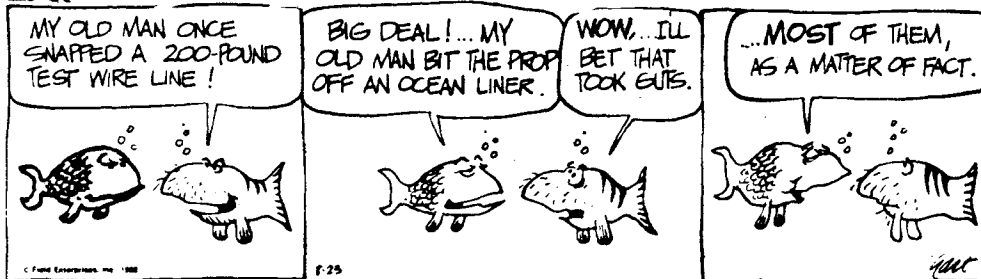
Gerry Hoffman reported on some things he saw at the Raleigh, NC workshop weekend that he thought might be successful at our show this year. The Board agreed to try these out. Tetra had a nice display set up in Raleigh, and PVAS will try to arrange for the display to be set up at our spring show. A brochure similar to a program was also prepared to hand out at their auction. The brochure contains basic things like the judges - a who's who, about PVAS - when and where we meet, a message from the President, show and auction rules, etc. The brochure also contains advertising space for pet shops that supply merchandise for the auction. This will provide an incentive to pet shops to provide merchandise. Pat Gore offered to type up the brochures with the ads. Gerry Hoffman will sponsor and format the project.

If Tee shirts are to be sold at the show this year, they must be replenished. Gerry Hoffman will check with someone he met at a craft fair to see about designing a new shirt for PVAS.

Donation letters have been sent out by Mark Westling to the manufacturers.

With no further business to discuss, the meeting was adjourned at 9:15 pm. The next meeting will be at Mark Westling's.

R. C.



BREEDER'S AWARD PROGRAM

BREEDER'S AWARD PROGRAM STATUS

Grand Master Breeder

John Jessup	580 *
-------------	-------

Master Breeder

Garland Neese	1,115
Gerry Hoffman	895
Pat & Maggi Mahoney	785
Darrell Holman	640
Woody Griffin	610

Advanced Breeder

Ruth Brewer	305
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Intermediate Breeder

Roser Family	220
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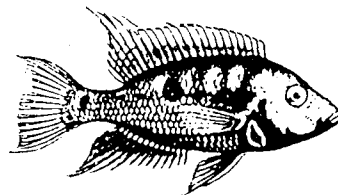
Breeder

Frank Angilletta	140
Alex Cummins	125
Nathan Mainwaring	100
Kenny Warren	90
Gene Aldridge	80
Amy Stirman	50

Members Working For BAP Status

Howard Kresin	15
Pat Gore	10
Ray Krause	10
John Mangan	10
Leslie Stirman	10

Notes: * = Point change from 585 to 580



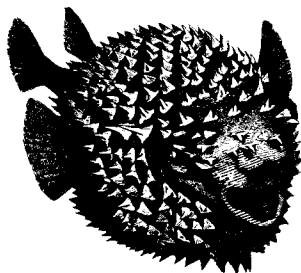
BAP BOARD MEMBERS

John Jessup (Chair) (Arlington) 534-1704
Gerry Hoffman (Warrenton) 347-7486
Garland Neese (Alexandria) 548-0557
Gene Aldridge (Arlington) 998-8757
John Mangan (Vienna) 938-4778
Bob Roser (ex officio) (Stafford) 659-1879

CHECKERS

Arlington County:	Pat Gore - 522-3884
Fairfax-Vienna:	Jim Long - 280-1753
Alexandria:	Jerry or Amy Stirman - 941-6729
Clifton-Centerville:	Kenny Warren - 378-8838
Dale City-Stafford:	Bob Roser - 659-1879
Warrenton:	Gerry Hoffman - 347-7486
Prince Georges County:	Alex Cummins - 656-6355
Montgomery County:	Ray Hughes - 424-3531

N.B. If you cannot reach your nearest checker, please call you nearest BAP Committee Member or John Jessup at 534-1704. An arrangement will be made to get someone to check your fish.



BOWL SHOW REPORT FOR

March

CICHLIDS

New World Dwarf

- 1st A. Cacatoides- J. Long
2nd C. Sajica- S. Ptaszek
3rd A. Cacatoides- D. Sun

Reftlake, Non-Mbuna

- 1st Kribensis- D. Sun
2nd ?????????- M. Westling
3rd L. Brichardi- D. Sun

Open

- 1st Ps. Zebra- D. Sun
2nd Keyhole- D. Sun
3rd J. Dickfeldi- D. Sun

EGGLAYERS/LIVEBEARERS

Killifish

- 1st A. Gardeneri- J. Long
2nd A. Australe- J. Kooken
3rd N. Guntheri- B. Roser

Catfish, Non-Corydoras

- 1st Whiptail Cat- B. Pallansch
2nd Octocinclus- J. Stieringer
3rd ?????????- J. Bennet

Open

- 1st Sailfin Molly- J. Bennet
2nd Congo Tetra- S. Ptaszek
3rd Angel Fish- J. Bennet

Judges Choice- Whiptail Cat Judge- John Mangan

	MONTH	QUARTER	ANNUAL
D. Sun	21	43	43
C. Edlar	0	10	10
J. Long	6	10	10
M. Westling	4	10	10
D. Mann	0	7	7
J. Bennet	2	4	4
S. Ptaszek	4	4	4

	MONTH	QUARTER	ANNUAL
J. Bennet	12	28	28
B. Pallansch	6	20	20
J. Lamberth	2	16	16
C. Edlar	0	11	11
M. Westling	0	6	6
J. Stieringer	5	7	7
J. Long	6	6	6
D. Mann	0	5	5
S. Ptaszek	5	5	5
J. Kooken	4	4	4
B. Roser	2	2	2

NEXT TIME

Angelfish/Discus Livebearers, Non-Guppy
Non-Riflake African Sharks & Loaches
Open Open

Keep Bringing Fish!!!!!!!!!!!!!!!!!!!!(etc.)

MORE FOR YOUR MONEY
By: Pat Kapsner, BAS

With the present state of the economy being what it is, getting the most for your money is an important consideration. Now stretching your dollar farther and getting more in return is easy to visualize when you're shopping for food, but that about other situations? How about that Aquarium Society membership fee? You can get more for those dollars too! Maybe the following true story will help to demonstrate how.

A long time ago, in aquarium society for away, one of the members (he had been a member for about a year) was getting the following out of his membership: a magazine to read once a month; a meeting to go to once a month; a chance to pick up a few "good deals" at the auction at the monthly meeting. He didn't want any more to do or be a part of anything more than that. Of course he knew that he could never help change the club for the better or successfully make any suggestions to improve club activities because the club was controlled by a clique (just as every aquarium society is) and these people were always too busy to talk with the general membership (and always talked way over everyone's head when they did come down to the general member's level).

Then one day he got his eyes opened! The chairman of the Bowl Show committee needed some assistance at a meeting and when he asked "our hero" to help, he did it in such a way that he seemed almost human, so, "our hero" agreed. That was a mistake for "our hero" found out that setting up even a small Bowl Show and being part of the reason it ran so well felt pretty good. It went so well, in fact, the Bowl Show chairman asked him to become a part of the Bowl Show committee. Not long after, the Annual Show committee started forming, and he was asked to serve on it due to his contributions to the Bowl Show effort. He agreed, and the next show committee meeting just happened to be held at the same time and in the same place as the monthly board meeting. Here he was, in the middle of the clique that ran the society, and he wasn't quite sure how they would treat him.

Well, to make a long story short, "our hero" found out that the members of the ruling clique weren't really so bad - and most of them were even friendly and did know the common names of a lot of fish. They really weren't as self-centered and stuckup as they sometimes seemed, it's just that most of the time at the monthly general meetings they were busy trying to keep things running smoothly, so that the members would enjoy a good meeting by a good society. Many of them were fairly knowledgeable about fish and had interesting setups. "Our hero" learned a lot, was able to upgrade his own fishkeeping abilities, and wanted to participate even more (all from associating with these people in a situation less hectic than that of a general meeting). He ran for and was elected society vice-president, got more and more involved, and found out that he enjoyed it immensely.

When after three years, he had to leave the area and move to another, he found that he wished he had become a more active participant earlier, and vowed that he would always be an active member of whatever society he joined from that point on. After all, he actually got something for his efforts, a much greater enjoyment of the aquarium hobby.

I know this story is true, because I was that fellow. My active participation in the aquarium societies has increased my enjoyment of the hobby so much that I could never put a dollar figure on it, but it sure makes the membership fee seem a pittance! Do yourself a favor - try active participation and see if you don't get more for your money.

(Reprinted from Daphnian, Boston Aquarium Society)

APONOGETON ULVACEUS

by Frank van der Aa,
Montreal Aquarium Society

Plants, as most of you will readily agree, are half the beauty of a display tank. For some reason or another, a lot of complaints are heard whenever plants are discussed: "The only thing that grows in my tank is algae," or "yeah, I spent a few bucks on one of them swordplants, a real beauty when I got it, but now it has two leaves and is a ball of mush" and "I had an Aponogeton something-or-other, a gorgeous plant. All of a sudden it disappeared, so I threw it out."

On and on we could go, but listen guys, one of the reasons you're successful with fish and not with plants is because you spent hours pampering your fish, but when it comes to plants though, one quick poke in the gravel is all they get. Sorry, this just won't do; they need a little more than that!! For instance, they feed just like your fish do, but not quite in the same manner. I've yet to experience a plant rushing up to the surface when I approach a tank, but I have seen hungry plants.

Let me relate to you what I have done with an early birthday present I received from a friend last summer. He returned from Holland with a few plants, among them, a Madagascar lace and an ulvaceus. Most of us have seen the lace at one time or another, but have you ever eye-balled an ulvaceus? Wow, what a beauty.

When I first got the plant, it had all of three leaves still attached, the largest of which was about $\frac{3}{4}$ inch wide and six inches long. A quick trip to my bookshelf revealed more. Habitat: Madagascar, best placed in soft, mildly acid water. Planting medium: $\frac{1}{3}$ unwashed sand, $\frac{1}{3}$ charcoal, $\frac{1}{3}$ aged clay. Nothing out of the ordinary when Aponogetons are involved. Of course, I had the ingredients at hand; doesn't every aquarist? A plastic yogurt dish was worked over with a hot soldering iron so it looked like something produced by The Godfathers. The mud was deposited in it and the tuber was planted so that it peeked through the surface of this concoction. A light dusting with cleaned sand and the whole thing was "planted" in my thirty gallon desk tank.

The use of pots for plants is, in my opinion, an absolute necessity. First of all, you can give the plant the substratum it needs. The competition for food-stuffs in the regular substratum is much less, leaving more for "bunch" plants and the like. No mess is made when the position of the plant in the tank is shifted. What's even more important, the root system isn't damaged while you're doing this.

Thus was the manner in which this plant was planted. Time involved about one hour, including the job in the kitchen. That is just about the same amount of time spent when newly acquired fish are introduced into their tanks, you say? Right, but the fish will have to be fed about twice a day to insure proper growth

while the plant has been for about six months upon introduction. All that is needed now is light.

The particular tank involved is illuminated with one forty watt plant-grow fluorescent tube for about ten hours a day. The water has a hardness of about 6 DH and is close to neutral in pH, temperature 76-78F, nothing special really. Montreal tap water is filtered by a Dynaflo filter through peat and polyester fibers. If you feel that the water is something special, don't let that stop you from trying different plants. The right substrate will go a long way. As to the type of light, use what you have available, but consistent, don't switch too soon.

In most cases, a plant will die back slightly before new growth can be detected. Not the ulvaceus, however. Within two days a new leaf appeared. One month after planting, it had grown into a beautiful plant. The leaves, about 22 of them, are on the average about 26 inches long, 2 1/2 to 3 inches wide, a pretty translucent green with large waves on the edges. At this time, the first flower bud appeared. It consisted of a long stalk which carried two opposed spikes covered with tiny yellow flowers. A very pleasant fragrance was easily detected. The complete thing measured 5-6' but don't worry, it does not come straight out of the tank. It sort of coils around in the tank and finally the bud will come out of the water. So far I have failed to come up with seeds, but right now spike #5 is just out of the water and #6 is on the way.

When the flower buds do come out of the water, they should be provided with a moist atmosphere. One of the best ways to achieve this is by placing a clear drinking cup over them. It is needless to say that the glass or cup should be provided with support from strips of glass laid cross-ways over the tank, or is it??? Anyway, included with the flower bud should be a few pieces of wet tissue paper. This will provide the needed moisture; re-wet the paper daily. On the second day, the "husk" splits and the spikes can be seen closely packed together. Pollenation should not be started before the flowers on the lower 1 1/2 of the spike are in full bloom. Use a fine brush (camel hair) or, if you're lucky, another spike from the same species. Repeat this twice a day.

As said before, I do not have any seeds from this plant as yet, but *Aponogeton undulatus* did produce seeds for me. After ripening, the seeds fall off the spike. At this time, they should be gathered and transferred to a small tank which has that super mix for substrate and about one inch of water. Place the seeds half in, half out of the substrate. Germination will take place and the leaves will form. Increase the water level slightly to keep just ahead of the growth. When six inch high plants are formed, transfer them to their own pots, plant them in a regular tank, and watch the tank transform into an aquarium filled with green stuffs.

Reprinted from a reprint in Tropical Topics, Indianapolis Aquarium Society, April 1984.



Bill, Ruth, John
Mangan

Pan Am Center
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**POTOMAC VALLEY AQUARIUM SOCIETY
PO BOX 6219, SHIRLINGTON STATION
ARLINGTON, VIRGINIA 22206**

The Potomac Valley Aquarium Society will meet on the following dates in 1986:

Jan. 13	May 12	Sept. 8
Feb. 10	June 9	Oct. 13
March 10	July 14	Nov. 10
April 14	Aug. 11	Dec. 8

Meetings are held at the John C. Wood Facility, Rt. 237 (Old Lee Hgwy.)
Fairfax City, VA. Doors open at 7:30 PM, meetings start at 8:00 PM.
Everyone is welcome.