

DELTA TALK

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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 disseminating 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 6067, Shirlington Station, Arlington, Virginia, 22206. Original articles and drawings may be reprinted if credit is given the author and DELTA TALE. Two copies of the publication in which the reprint appears should be sent to DELTA TALE which will forward one copy to the author.

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OFFICERS FOR 1972

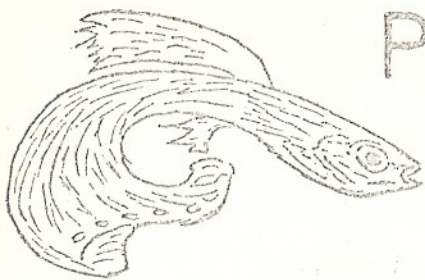
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Vice-President	Gene Sergent
Recording Secretary	Ken Fisher
Corresponding Secretary	Susan O'Meara
Treasurer	Jean Keplinger

BOARD OF GOVERNORS

Dave Culver	Vivian Poulsen	Pat O'Meara
Pauline Sergent	John Wolcott	Neil Keplinger

1972 MEETING DATES

Jan 10	Apr 10	Jul 10	Oct 9
Feb 14	May 8	Aug 14	Nov 6
Mar 13	Jun 12	Sep 11	Dec 11



POTOMAC VALLEY AQUARIUM SOCIETY

FROM THE PRESIDENT

We have a good start on organizing our clubs. There is much yet to be done, but it's a good start. There were about ten people who signed up for the cichlid group, I don't have the latest number on guppy or livebearer interest. Hopefully, we can get a report on each at our next meeting on September 11.

At that time I'm going to ask you all two questions: "Do we want a fall show?" And, if so, "who is willing to help?" It is the same problem we always face--a lack of assistance in doing the many things necessary. There's plenty of free advice and criticism, but it's the same few who have to carry the load. The spring show pointed up some problem areas that need additional manpower, so if we want the show more people are going to have to assist. John Wolcott will lay it out at the September meeting. See you there!

Sincerely yours,


JOHN E. JESSUP, JR., Ph.D.

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SECRETARY'S LETTER

Well here it is September and the "fall show" is rapidly approaching. Hope all of you are getting those prize specimens ready. The date of the "fall show" is Saturday, October 14. Let's all turn out and make this one the best yet. Also, I'm very sure that John Wolcott could use some assistance, as these shows are for all the club and much work and planning must be done to make them a success.

Our new groups are now forming and you should contact the following people to join up:

Cichlids - John Jessup, 534-1704 - Gene Aldridge, 931-7426
Guppies - John Wolcott, 262-4213 - Neil Keplinger, 869-6677
Livebearers - Ken Fisher, 431-6571

I hope all of you will take advantage of one or more of these groups. I think you will be able to increase your knowledge and solve various problems you might be having trying to raise or spawn a particular type of fish.

The Board of Directors of your club have selected the following people to serve on the nominating committee:

Wendell Poulsen (Chairman)	Ted Walsh
Gene Aldridge	Steve Ganslen (Alternate)
Morris MacGregor	Ken Raab (Alternate)
Virginia Montgomery	

If you wish to be considered for an office or member of the "board" of your club, kindly contact one of the above committee members.

See all of you at our monthly meeting on September 11, 1972.

KEN FISHER
Recording Secretary

ACTIVATED CHARCOAL FOR THE AQUARIST

By Jack Hale

The use of activated charcoal (or activated carbon-same material, different name) dates from the post World War I period in the United States, and has spread throughout the world. Considering that this is a common and frequently used substance throughout the aquarium hobby, there exists a marked lack of understanding of its properties and utility. This article will explore the physical properties of activated charcoal and its utility when used in the aquarium.

Activated charcoal came to prominence during World War I when a material was being sought for use in gas masks for protection against the poison gases first used in that war. Activated charcoal was discovered to be the only material which could filter out these gases, especially chlorine and phosgene, the two most commonly used war gases. The remarkable ability of activated charcoal to purify the medium in which it was introduced was rapidly realized and its use soon became widespread. Today most major air conditioning units use activated charcoal to purify and deodorize the air passing through their systems. Industry finds many uses for activated charcoal, from the purification of water used in chemical processes to the removal of noxious and poisonous substances from plant atmospheres. The atmospheric regeneration system used on all modern submarines uses activated charcoal to remove contaminants from their air. Activated charcoal is also used to purify water used for various purposes on board the submarines. All American spacecraft and the astronaut's spacesuits use activated charcoal in their atmospheric recirculation systems to remove chemicals and odors which would rapidly, otherwise, degrade the operation of the system. Activated charcoal is even found in the filters of cigarettes today, and, of course, in millions of aquariums.

If the above brief survey of the uses of activated charcoal makes it sound like a substance with almost magical capabilities; a simple demonstration will give you an excellent appreciation of its performance. Obtain a plastic bag and some extremely odorous substance. I would suggest some crushed onion or a well smoked cigar soaked in water. Place the substance in the plastic bag and close the bag, leaving a finger sized hole in the end of the bag. Squeeze the sides of the bag, forcing air out and smell-Ugh! Now place one of the small activated charcoal cartridges used with undergravel filters in the opening of the bag and squeeze the bag, this time forcing the odor carrying air to pass through the charcoal and again smell. This time there will be no odor. The 'marked' change in the quality of the air must be experienced to be appreciated.

We now have the background of a remarkable substance and a demonstration of its efficiency, so an explanation of how it works seems in order. The difference between ordinary charcoal and activated charcoal is in the process known as activation. Activated charcoal was originally made from peach pits, but today is produced from a myriad of sources: Various types of wood, low grade coal, nut shells, petroleum coke (refinery residues), animal bones, etc. These materials are initially burned to produce ordinary charcoal. The activation process involves placing the ordinary charcoal into an inert atmosphere (nitrogen) and subjecting it to high temperatures and superheated steam for extended periods of time. This process causes an additional 'burning' of the charcoal, but since actual combustion is rendered impossible by the inert atmosphere, the result is that all volatile materials are literally boiled out of the charcoal. This results in the activated charcoal being riddled with millions of microscopic tubes (or tunnels) throughout its substance. The size of these tubes ranges from around one micron down to the size of a single heavy molecule. The resulting 'surface' area of activated charcoal is astronomical. The two ounces of activated charcoal used in the average aquarium filter has a surface absorption area of approximately 1,200,000 square feet.

When a liquid or gas is passed through the activated charcoal the millions of tubes act as traps, through a process of capillary action, which catches and holds any substance in the medium which is larger than a heavy molecule. Once the tubes have been filled to capacity, the activated charcoal can no longer perform its function. There is no way to reactivate charcoal except by repeating the process of 'activation' all over again. The degree of activation, the capacity, of the charcoal depends on the time spent in the process of activation, and outside of a laboratory there is no way of determining the capacity of various charcoals except by experimentation.

To be able to judge the utility of activated charcoal in the aquarium, the aquarist need only obtain on the books on aquarium water chemistry and note the contaminants normally present in the water. These range from simple chemicals: carbon dioxide, hydrogen sulfide and other sulfates, nitrogen, fluorine, methane carbon monoxide and various phosphates. There are also complex organic compounds: urea, various nitrates, tannins, etc., and heavy metals; zinc, iron, lead, etc. All in all it seems a rather nauseous mixture in which to keep fish. Activated charcoal will remove all of the contaminants and more; some with more efficiency than others, but any reduction is a step in the right direction. An excessive presence of organic compounds in the aquarium water can be injurious to the fish and as the percentage grows, actual damage to body and fins and even death can occur. Changing portions of the aquarium water does little to remove these contaminants, as they result mainly from the

waste products of the fish and plants, and the decay of uneaten food. The percentage of water remaining in the aquarium becomes more and more saturated with the compounds. The introduction of fresh water actually adds to the contaminates in that additional amounts of flourine and nitrogen are introduced. Efficient fish-keeping essentially means making the most of one's situation and promoting the best possible conditions for the fish. There is little doubt that failing to take advantage of the opportunity of using activated charcoal in the aquarium is not giving the fish the best conditions.

To determine the relative value of the use of activated charcoal in the aquarium a comparative test was conducted. Two groups of six female guppies were used as the test subjects. One group and all of the subsequent offspring were kept throughout the test period in water which was filtered through activated charcoal, this group was designated "group A". The Second group was kept in water which was filtered only by the use of filter material, and was designated "group B". The results of the test are shown below, after termination of the test at six months.

	<u>GROUP A</u>	<u>GROUP B</u>
Total offspring	394	326
Average per litter	65	54
Total deaths	17	49
Average deaths per litter	2.8	8.1
Average size of males at 3 Months	1 5/8 In.	1 1/4 In.

All conditions, other than the manner of the filtration of the water, were maintained as constant and similar as was possible. There were no abnormal occurrences in either test group. The conclusions of the test were that the fish kept in the water filtered through the activated charcoal were markedly healthier than the group which was not. They consistently averaged larger litters and the offspring had a much lower mortality rate than group B and the fish were healthier and grew much faster.

Activated charcoal is not a miracle substance, but there can be little doubt that its use in the aquarium will be of great benefit to the fish. I would recommend that any serious aquarist, who is interested in optimum conditions for his fish, give serious consideration to the use of activated charcoal.

IFGA SHOW STANDARDS

(The following article is extracted from the 1971 revision of the IFGA's Judging Rules & Show Standards For Fancy Guppies. Elsewhere in this issue we have proudly posted the impressive wins by our club members at the IFGA's recent 1972 mid-Atlantic show. We hope that the following information might help others achieve similar successes.--Ed.)

CLASSIFICATION OF ENTRIES:

- Bi-Color - Two basic different colors with a minimum of 25% of the secondary color. The primary class color must be specified.
- A.O.C.-- Shall be any color not covered by classes.
- Multi-- Shall be three or more equally distributed basic colors in any pattern.
- Gold-- Shall be defined by basic body color.
- Gold Half Black - Shall be in half black class.
- Half Black Body with black tail shall be in black class.
- Snakeskin/Cobra - Snakeskin must have distinct snakeskin pattern on the body. Cobra must have three or more distinct vertical bars on the body.
- Female Half Black Body - Half black class.
- Female-- Color of the tail shall denote color class except Gold, Albino or Bronze.

Recommended qualifications regarding females: A female may be entered in the female classes unless it has a gonopodium or shows no gravid spot.

COLOR STRAINS:

The background color of the body of the guppy is known as the color strain. The required color strains are:

- GREY: Wild type guppy color.
- GOLD: Butter yellow with a pink cast.
- ALBINO: The eyes are pink and the body albino or light pink.
- BRONZE: A dark gold body with each body scale edged in black.
- HALF BLACK: Any basic color in combination of black from the dorsal back to the caudal fin.

THE DELTA TAIL GUPPY

Body - The body to the caudal fin ratio shall be 1 to 1. The caudal peduncle proportions to be 3 units in length to 2 units in height and strong enough to support the caudal fin. The body is to be well rounded and not humped or flat headed.

Dorsal Fin - The dorsal fin shall be of parallelogram shape in the proportions of at least 3 units of length to 1 unit of height and held erect.

Caudal Fin - The caudal fin shall form an equilateral triangle into the caudal peduncle. The posterior edge of this fin to be even or fringed and not scalloped or frayed. This fin to be spread wide and carried erect all of the time, and not to be in a drooping position.

Color - The dorsal, caudal and body should be the same color or as close to one color as possible, the more pure or solid color being more desirable. Two shades of one color (light blue and dark blue) are better than two different colors mixed. The more intense colors with good density are also better than the drab colors.

THE VEIL TAIL GUPPY

Body - The body to caudal fin ratio shall be 1 to 1. The caudal peduncle proportions to be 3 units in length to 2 units in height and strong enough to support the caudal fin. The body to be well rounded and not humped or flat headed.

Dorsal Fin - The dorsal fin shall be of parallelogram shape in the proportions of at least 4 units of length to 1 unit of height and should be straight and held erect.

Caudal Fin - The caudal fin shall form an isosceles triangle into the caudal peduncle. The posterior edge of this fin to be even or fringed and not scalloped or frayed. This fin to be spread wide and carried erect at all times.

Color - The dorsal, caudal and body should be the same color or as close to one color as possible, the more pure or solid color being more desirable. Two shades of one color (light blue and dark blue) are better than two different colors mixed. The more intense colors with good density are also better than drab colors.

SWORDTAIL GUPPY

Body - The body to caudal fin ration shall be 1 to 1. The caudal peduncle to be 3 units in length to 2 units in height and strong enough to support the caudal fin. The body is to be well rounded and not humped or flat headed.

Dorsal Fin - The dorsal fin shall be long and narrow in the proportion of at least 5 units of length to 1 unit of height and to reach well beyond the caudal peduncle section.

Caudal Fin - Top sword; The caudal fin shall form a sword-like extension of it's upper rays.

Caudal Fin - Bottom sword; The caudal fin shall form sword-like extension of it's lower rays.

Caudal Fin - Double sword; The caudal fin shall form sword-like extensions of it's upper and lower rays and be of equal lengths. The sword-shaped caudal fin extensions should be of even taper and not club shaped or frayed.

Color - Dorsal and caudal to be same color or as close as possible.

FEMALE GUPPY

Body - The body to caudal fin ratio shall be 3 to 1 or of proportions that show good symmetry. The caudal peduncle to be of proportions strong enough to carry the caudal fin. The body is to be well rounded and not humped or flat headed. The anal fin should be well rounded. A gravid spot must be visable.

Dorsal Fin - The dorsal fin shall be in proportion to the caudal size. (a large caudal - a large dorsal.)

Caudal Fin - The posterior edge of this fin is to be even and not scalloped or frayed. This fin to be spread wide and carried erect all of the time.

Color - The dorsal fin preferably should show the same color as the caudal fin.

COLOR VARIETIES

The color of the caudal fin denotes the color class of the male guppy. The colors should be pure and extend well into the body and dorsal. Preference is given to the most intense shade of color. The recognized colors are; Red, Blue, Green, Black, Multi, Yellow, Purple and Bi-color. The A.O.C. class for color varieties will include any color not covered by the classes.

POINT SYSTEM FOR JUDGING MALES

	<u>Body</u>	<u>Dorsal</u>	<u>Caudal</u>
Size	10	10	13
Condition	3	3	5
Shape	4	4	10
Color	8	8	12
	<hr style="width: 50%; margin: 0 auto;"/> 25	<hr style="width: 50%; margin: 0 auto;"/> 25	<hr style="width: 50%; margin: 0 auto;"/> 40
Department	5		
Symmetry	5		

Total points 100

POINT SYSTEM FOR JUDGING FEMALES

	<u>Body</u>	<u>Dorsal</u>	<u>Caudal</u>
Size	13	7	13
Color	5	6	12
Shape	9	4	10
Condition	3	3	5
	<hr style="width: 50%; margin: 0 auto;"/> 30	<hr style="width: 50%; margin: 0 auto;"/> 20	<hr style="width: 50%; margin: 0 auto;"/> 40
Department	5		
Symmetry	5		

Total points 100

For Tank and Breeder entries; add 10 points per fish for similarity. Maxium of 10 points may be deducted for body deformity for all entries.

The Breeders Tank Class shall consist of 5 males to compete for the Champion Breeders Trophy.

The Breeders Female Class shall consist of 3 females.

POTOMAC VALLEY GUPPY CLUB

TABLE SHOW RESULTS & STANDINGS

AUGUST 1972



GUPPY

a. Snakeskin	1st SHIFLETTE, N.	2nd SHIFLETTE, N.	3rd SHIFLETTE, N.
b. Black		NOT JUDGED	
c. AOC	SERGEANT	WOLCOTT	SHIFLETTE, A.



CICHLIDS

a. So. Am. "All"	SHIFLETTE, J.	PIPKIN, T.	HIRSCHMAN, E.
b. Cent. Am.	HIRSCHMAN, E.	JESSUP, JN	SHIFLETTE, J.
c. Other	LENZEN	JESSUP, JN	JESSUP, JN.



OTHER

a. Tetra	HIRSCHMAN, A.	FISHER	HIRSCHMAN, A.
b. Characins		NOT JUDGED	
c. Other	SHIFLETTE, J.	RUSHTON	FISHER

POINT COUNT

GUPPY	AUGUST	QTR	ANN'L	CICHLIDS	AUGUST	QTR	ANN'L
Cunningham	-	-	3	Adams	-	-	3
Ganslen	-	-	3	Aldridge	-	-	15
Hirschman, E.	-	-	3	Gargani	-	-	7
Johnson, A. J.	-	-	2	Goodman	-	-	6
Johnson, M.	-	-	16	Hammond	-	-	12
Keplinger, M.	-	-	2	Hardy, C.	5	5	5
Keplinger, N.	-	-	10	Hirschman, E.	9	24	27
Oliver	-	-	11	Jessup	10	10	68
Poulsen	-	-	2	Lenzen	5	5	17
Sergent	8	23	93	Oliver	-	-	9
Shiflette, J.	-	4	6	O'Meara, P.	-	-	6
Shiflette, N.	10	13	13	Pipkin, T.	3	3	3
Shiflette, A.	4	4	4	Shiflette, J.	7	14	16
Thomas	-	-	4				
Walsh	-	-	8				
Wolcott	7	17	60				

Jessup, June & Hardy, M. 1 each

OTHER

Aldridge	-	-	4
Fisher	8	8	36
Gargani	1	1	7
Goodman	-	-	7
Hirschman, A.	9	23	32
Hirschman, E.	-	-	2
Lenzen	-	-	6
Oliver	-	-	9
O'Meara, S.	-	-	6
Rushton	3	10	23
Shiflette, D.	-	-	4
Shiflette, J.	4	4	4
Walsh	-	-	11
Whittman	1	2	8

Pipkin, M. 1 point

Jessup, Julie & Hirschman, A. 1 each

We Need HELP



FALL SHOW

14 OCTOBER 1972

Please call J. WOLCOTT

SEPTEMBER 10, 1972 SHOW SCHEDULE

- GUPPY - Multi, 2 Matched Males, AOC
- CICHLIDS - AngelFish, Breeding Pairs, Other
- OTHER - Livebearers (other than Guppies)
Killifish, Other



TWO ENTRIES REQUIRED IN EACH CLASS IN ORDER TO BE JUDGED - A SINGLE ENTRY WILL BE PLACED IN AOC/OTHER

PVGO MEMBERS PARTICIPATE IN IFGA SHOW

The International Fancy Guppy Association held a high point show last weekend in New Jersey. (Aug. 19-20; So. Jersey Tropical Fish Club) Sixteen of our members attended. Officially judging, along with Senior IFGA Judges, were PVGO members: K. Fisher, J. Keplinger and P. Sergent.

Congratulations are in order also. Several of our members took awards with their fish:

Neil Keplinger-
1st and 2nd, gold
female-breeders class;

Kenneth Fisher-
1st, black veil
male-breeders class;

John Wolcott-
1st, novice female;
2nd, show female;
2nd, novice male;

Keep up the good work showing those fine fancy guppies!

Members Attention: P.V.A.S. members get a 20 percent discount on the purchase of all equipment and supplies at PJ's Tropical Fish and Pet Center, 2915-B, Arlington Drive, Alexandria, courtesy of Paul Cornelison.

Members also get a 20 percent discount on everything but sale items at Alexandria Tropical Fish, 7950 Fort Hunt Road, Alexandria, Virginia, 22308.

FROM THE WAYS AND MEANS COMMITTEE

We would like to thank everyone who has contributed fish, aquarium supplies and equipment for the door prizes at our monthly meetings.

- May: Door Prizes: Aquarium calendars (5) from
Kordon Corp.;
Shipping carton from the Hecht
Co. Pet Shop.
- Raffle: 1 lb. Tetramin donated by club;
Bionetics conversion filter;
Gold gouramis from J. Goodman;
Cichlasoma salvini from J. Balascio;
And opaline gouramis from J. Pipkin.
- June: Door Prizes: Assorted aquarium supplies from
Silco and Kordon Corp.;
- Raffle: 1 lb. Tetramin donated by club;
Miracle filter;
Albino cats, dempseys and T. moss-
ambica from T. Walsh;
And Delta tail guppies from W. Keplinger.
- July: Door Prizes: Assorted 3/4 oz. Tetramin (11)-Kordon;
- Raffle: 1 lb. Tetramin donated by club;
6 Oz. Tetramin large flake from
Kordon Corp.;
- Diatom Hanger from S. Ganslen, K. Fisher;
Universal pH test kit;
Assorted aquarium supplies from
Silco. and Kordon Corp..
- August: Door Prizes: Assorted 3/4 oz. Tetramin (7)-Kordon;
- Raffle: 1 lb. Tetramin donated by club;
Assorted aquarium supplies from
Silco.;
- And Lebidochromis caeruleus and
Haplochromis polli from S. O'Meara.

Members wishing to donate surplus fish, etc.,
please contact Ways and Means Committee Chairman, Patrick
O'Meara, at 522-5282 anytime. Again, many thanks for your
support.

FROM THE MEMBERSHIP COMMITTEE

Welcome new members:

Richard and Etta Baker
8557 Richmond Hwy. #101
Alexandria, Va. 22309
360-5705

Dennis E. Beebe
1220 N. Pierce St. #206
Arlington, Va. 22209
528-8609

Jack Corbett
3321 Grass Hill Terrace
Falls Church, Va. 22044
256-5178

Carl and Mary Hardy
6310 S. Kings Hwy. #T-2
Alexandria, Va. 22303
768-2109

Stephen L. Stamper
1600 S. Joyce St. #0-2
Arlington, Va. 22202

Richard J. Starr
3700 N. Rosser Street
Alexandria, Va. 22311
820-2561

Terry and Barb Wasylink
405 Kennebec St. #3-A
Oxon Hill, Md. 20021
839-4071

Note changes of address

Andrew and Sue Hull
151 Todds Road #443
Lexington, Ky. 40509

Neil and Jean Keplinger
376 W. Deer Park Drive
Gaithersburg, Md. 20760
869-6677

Eugene and Pauline Sergent
2937 Espana Court
Fairfax, Va. 22030
560-8783

F. Alan Shaw
2727 Duke St. #807
Alexandria, Va. 22314

*****Please add this page to your membership list.*****

FROM THE MEMBERSHIP COMMITTEE

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Note changes of address

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8557 Richmond Hwy. #101
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151 Todds Road #443
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Alexandria, Va. 22303
768-2109

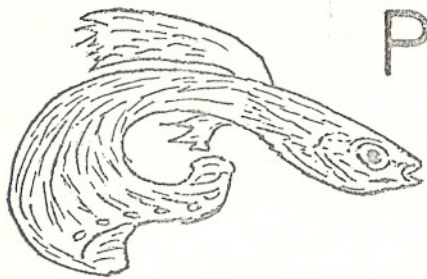
F. Alan Shaw
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Alexandria, Va. 22314

Stephen L. Stamper
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Arlington, Va. 22202

Richard J. Starr
3700 N. Rosser Street
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820- 2561

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Oxon Hill, Md. 20021
839-4071

*****Please add this page to your membership list.*****



POTOMAC VALLEY AQUARIUM SOCIETY

DATE _____ 197

APPLICATION FOR MEMBERSHIP

NAME: _____

STREET: _____

CITY: _____ STATE: _____

PHONE: _____ ZIP CODE: _____

Number of Tanks: _____

Type of Fish: _____

Time in Hobby: _____

Fish you have spawned: _____

What you would like
to do in this Club? _____

Other Interests & Hobbies: _____

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

Occupation: _____

Membership dues for the P.V.A.S. are \$7.50 family; \$5.00 individual; \$3.00 Corresponding and \$2.50 Junior. Completed applications accompanied by your Check or Money Order should be mailed to P.V.A.S., P.O. Box 6067, Arlington, Virginia, 22206. Please attend our meetings at the Coca-Cola Bottling Plant, 5401 Seminary Road, Alexandria, Virginia on dates indicated below at 8:00 P.M.

September 11

October 9

November 6

December 11

Potomac Valley Aquarium Society
P.O. Box 6067
Shirlington Station
Arlington, Virginia 22206



*Third
CLASS*

*Advanced Aquarists of the National
Capital Area
7000 River Oaks Dr.
Mc Lean, Va. 22101*