

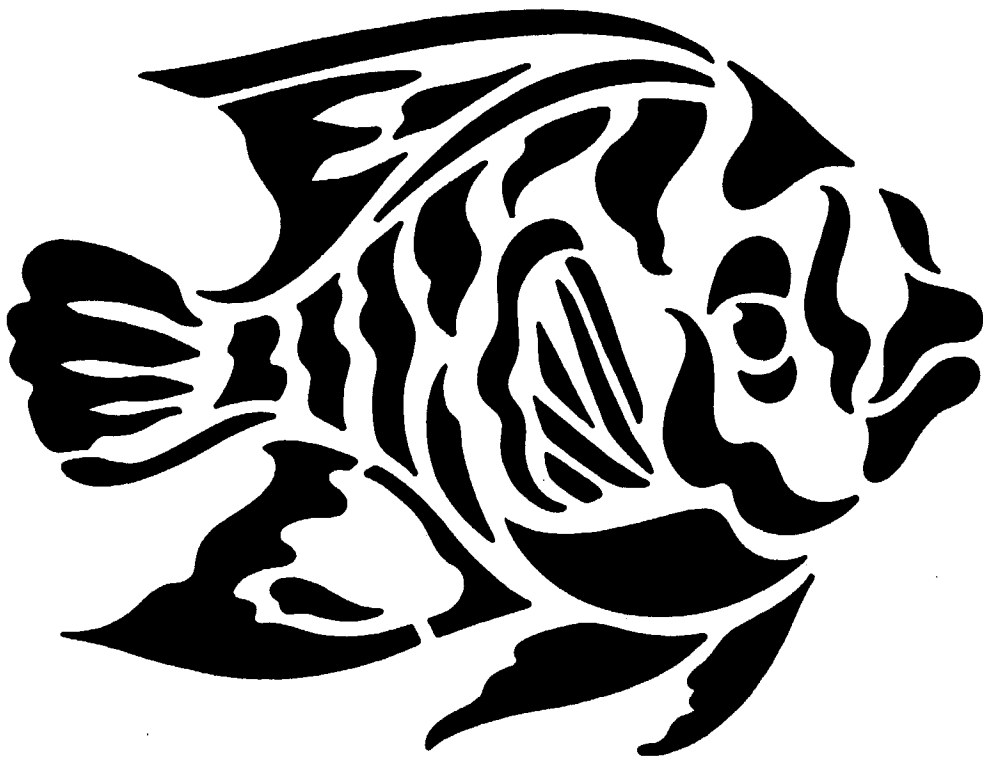
* DELTA TALE *

Feb. 1985
vol. 16, #2
50¢

OFFICIAL PUBLICATION OF

potomac valley aquarium society

Inc.



POTOMAC VALLEY AQUARIUM SOCIETY



POST OFFICE BOX 6219 SHIRLINGTON STATION ARLINGTON, VIRGINIA 22206

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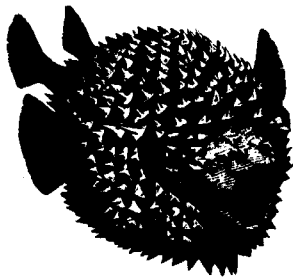
From The President

It has finally happened, and if you hadn't heard at the January meeting, you can read it here. In this our 25th Anniversary year, after a quarter of a century of prosperity, PVAS no longer exists. That's right, PVAS is gone forever. But rejoice fellow hobbyists, for all that has changed is the name. The members are still the same and the spirit of the club with all its activities is stronger than ever. We have now become the Potomac Valley Aquarium Society, Inc. One small word at the end of our title changes everything. This is our first step in a seemingly endless process the club has been engaged in for sometime. We are completing our goal of attaining a tax-exempt status which should be done shortly. Welcome thenew era;say hello to PVAS,Inc.

This month's message has taken me longer to write than usual due to my typical procrastination, and as a result I am able to squeeze in a few words about this past weekend. By the time you read this, you surely will remember it too. Think back to about -5° outside; how did your fish make out? It was hard enough to provide adequate heat for the house,let alone the fish. Luckily, most of my fish are in the same room as the wood stove and everyone stayed nice and toasty except for the bottom corner tanks. How about your finny friends? Hopefully not too many were lost. At the February meeting we will take a body count and see if my favorites, the Goodieds, made out better than the rest. How does the saying go, better dead than Goodied?

January's Super Sunday is over and PVAS,Inc. now presents February's Super Sunday. The Sunday after the meeting the Open Fish Room returns in 1985. It is fitting to start with the most spectacular collection of fish,plants, and aquatic inhabitants that exists in Northern Virginia. Once again the club is invited to see Jim Long's fish basement. Even if you've seen it before you probably missed half of what is there, and there is lots more to see lately. Have you seen a dozen or so egg masses from mystery snails in one tank, or a mated pair of turtles walking around the floor, the latest in Australian rainbows, variuos ferns hanging from ceiling hooks, aquatic plants to make anyone envious, or even a dog that licks water from the ground-level tanks? See directions on another page and show up. Everyone is welcome, so come and learn something.

Things are rolling along for the Spring Show, and with sme fresh ideas we should be having some keen competition. Start thinking about grooming your best fish for the event. Why not bring one or two in for the monthly bowl show and possibly take home 8 Oz. of food? See you at the next meeting.



Gerry

FRUM THE EDIT ORS DESK

The first topic for this month is the spring show. This seems like a strange thing to be writing about as I glance out my window and see the ground covered with snow, but there is a lot involved in putting on a show and the work has to start early. The show committee has had its first meeting and a lot of the ground work was done and/or assigned to subcommittees. Over the next couple of months show chairman John Jessup, and/or his subcommittee heads, will be looking for volunteers for various jobs. Please don't wait to be drafted, volunteer to do something. There are a lot of little jobs to be done which don't take very much effort if enough people can be found to do them. I've been getting a little more involved each year and have found that it's really rather interesting to see what's going on behind the scenes, it's also kind of fun. Give it a try.

The River City Aquarists , Winter Weekend Workshop, advertised in the January issue of Delta Tale has been moved. It will now be held in conjunction with the Raleigh Aquarium Society workshop. Details can be found elsewhere in this issue.

There was a pretty good turnout for the January bowl show. Let's try to keep it up. Doesn't anyone out there have cichlids anymore? If so where are they?

For what it's worth- the Feb. 1985 issue of Discover magazine has an interesting article on mudskippers. Lots of pretty neat pictures.

I seem to have run out of things to say so unless I think of something else later that's it til next month ...



I've finaly gotten the presidents page which means that I now have something else to comment on. The goodeids did survive the cold better than most other fishes. Even without heaters in their tanks they were swimming around happy as could be. They probably thought they were back home in the cool mountain streams of central Mexico. So there....

John



THE MIRROR

PAT MAHONEY

REVIEWS ✓

KRIBENSIS BEHAVIOR, Mark Steele, THE YOUNGSTOWN AQUARIST,
Youngstown Area Tropical Fish Society, JAN 85.

CLOUDY WATER, John Mangan, TROPICAL JOURNAL, South Florida
Aquarium Society, JAN 85.

CHLORAMINE, John Mangan, ALL CICHLIDS, Michigan Cichlid
Association, JAN 85.

CLOUDY WATER, John Mangan, THE YOUNGSTOWN AQUARIST,
Youngstown Area Tropical Fish Society, JAN 85.

CHLORAMINE, John Mangan, THE REFLECTOR, Central New York
Aquarium Society, DEC 84.

CHLORAMINE, John Mangan, TROPICAL BREEZE, San Diego Tropical
Fish Society, DEC 84.

FEBRUARY HAPPENINGS

Program: Killifish- slides from the AKA and others and a discussion
of this popular group of fishes

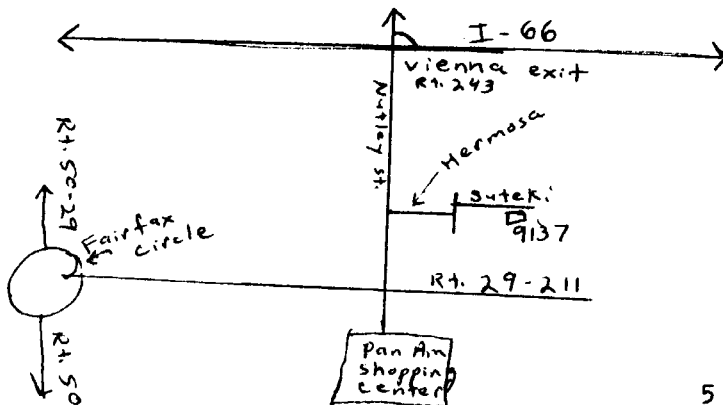
Mini*Auction : Lots of good items last month; can we top it this month?

Monthly Raffle: Lots of backgrounds to still give away (and other things)

Open Fish Room: Sunday Feb.17 1:00-3:30

Jim Long's House
9137 Suteki Drive
Fairfax, Va. 22032

Phone 280-1753



CICHLASOMA SEVERUM

by Frank Angilletta, FVAB

Cichlasoma severum, severum meaning "is severe", is no more militant than the average cichlid. Cichlasoma severum was formerly known as Heros spurius. C. severum is a South American cichlid, native to the country of Brazil. It is found in the Amazon River and its various tributaries. Its range is as far north as Guiana, as far south as Bolivia, as far west as Ecuador, and as far east as the mouth of the Amazon River.

Cichlasoma severum is fairly easy to sex. The male has a larger row of dots on his side, whereas the female has fewer dots if any at all. Even though it is fairly easy to distinguish their sex they are undoubtedly one of the more difficult cichlids to breed. The severum requires a large aquarium (preferably a 55 gallon), a temperature of 80 degrees, and should be well fed on bloodworms to induce spawning. One note to remember is not to overfeed C. severum as it is liable to die from over-feeding, even on live food.

I received my pair of Cichlasoma severum from my good friend Jerry Zimmerman on 3/20/84. I then placed them into a 55 gallon aquarium with several pieces of Virginia Blue Shale, some standing and some laying on the bottom. To give the fish several places to choose as a spawning site. The temperature was set at 80 degrees, and the pH was set at 7.2.

The mature Cichlasoma severum were fed chopped bloodworms, black worms, and some flake food. This created a very good diet to help condition the fish for breeding.

I placed my 2 specimens into the aquarium on 3/20/84. After proper conditioning and several water changes the spawning took place 21 days later on the morning of 4/10/84. The eggs hatched 3 days later to begin their wiggler stage development on 4/13/84. The fry began to free swim on the afternoon of 4/20/84. I began to feed the fry immediately after. The young fry were fed frozen Daphnia, crushed flake food, and chopped blackworms. Also something interesting to note was that the parents were both banded severums, but the young were 50% banded and 50% were gold in coloration.

SMALL-LEAVED AMAZON SWORDPLANT
(Echinodorus amazonicus)

By Sue E. Kroll, SDTFS

As the common name implies, this pretty aquarium plant is from South America-- the river basin of the middle and lower reaches of the Amazon in Brazil.

It is a rooted plant that may have as much as 30 to 40 leaves coming off of the main stem. The leaves are long, spearlike, and have pointed tips. The leaf itself has two distinct parts: the blade and the stem, with the blade substantially longer than the stem. It is a somewhat delicate plant and care should be taken not to place it in a tank of plant-molesting cichlids, or plant-eating snails.

It reproduces by runners, with some 60 new young plants not uncommon in only a year's time. The runners should be weighted down into the substrate, where the baby plants will begin to sprout roots.

E. amazonicus is best cultivated in large tanks with medium hard water at temperatures around 68°F.

As far as lighting needs go, it does rather well on only about 12 hours of artificial light. If the outer leaves turn brown, it is normal, and they should be removed as they are rather unsightly. However, if leaves other than the outer ones should turn brown, or discolor, then more or stronger light may be in order.

The small-leaved Amazon Swordplant should not be disturbed once it is planted. Remember not to bury the crown of the plant beneath the sand, only the roots. Fertilizers are not necessary if they are planted in a small bit of potting soil topped with sand or gravel.

Ref.

Aquarium Plants, Karel Rataj and Thomas J. Horeman.
Encyclopedia of Tropical Fishes, Herbert Axelrod and William Vorderwinkler.

Reprinted from The Tropical Breeze, San Diego Tropical Fish Society.

LOVE AFFAIR - APISTOGRAMMA (Regan, 1913)
by John Stankevitch, NAS

It's probably impossible to pinpoint my beginning interest in the genus of cichlids known as Apistogramma, but I do recall the occasional tank of "mixed dwarfs" in the shops filled with ragged non-descript fish. Once the relationship between these bedraggled specimens and the unreal beauty of the pictures of the various species in the books struck home, I raced from shop to shop asking for a variety of species by name only to hear in response, "Huh?" or "We never get those" or "They might be in with those mixed dwarfs".

Being new to the hobby, I tried what appeared to be the only recourse. Many "mixed dwarfs" came home, some even growing to display a little blue or yellow or red, and many growing to be Aequidens curviceps or Nannacara anomala. It seems that my attention to tankmates, water conditions, and maintenance left a lot to be desired in those days.

When I found myself brooding over color pictures of "Apistos", going out of my way to see one, and outbidding all to acquire them in auctions, I realized that I was in love. How else could you describe a full grown man lying on his belly for thirty minutes or more just to get a glimpse of these lovelies in a tank only inches from the floor, then observing them until his back and neck were stiff?

Apistogramma is one genus of a loosely defined group of cichlids referred to as dwarf (generally accepted as four inches or less standard length). The genus is neotropical with the females significantly smaller (one-half to two-thirds the size of the male). The most easily recognizable morphological characteristics of the genus are three anal spines and 14-16 dorsal spines. Further, the anal has four to seven and the dorsal four to ten soft rays. The lateral scale count ranges from seventeen to twenty-seven. It's worth noting the present importance of the three anal spines since the "T-bar apisto" with its eight anal spines owns a separate genus, Apistogrammoides.

The genus Apistogramma consists of well over 25 species. The Apistogramma Study Group (ASG) lists 36 species including synonyms. Distribution is widespread including the countries of Bolivia, Brazil, Columbia, Guyana, Paraguay, Peru, Uruguay, and northern Argentina. This territory is immense covering the entire drainage of the Amazon River and much more.

Typically, Apistogramma inhabit blackwater and clear water streams and creeks, occupying the substrate at the shallow edges sheltered by overhanging grasses and roots, and shaded somewhat by the overhanging trees. The water of the stream is almost always running, sometimes quite fast though the water at the edges will be slowed due to location and protective vegetation. These factors support the need for good oxygen content and minimal biological waste buildup in the aquarium.

Although some species can be maintained (and bred) under a wider range of conditions, the typical Apistogramma biotype consists of temperature between 74° and 78°F, hardness between 0.5 and 2 degrees German with a pH of 6.2 to 6.8. I've maintained several species quite well at up to 82°F and 10-12° German hardness. A. agassizi has spawned and raised fry under the latter conditions. One may find it necessary to reproduce the more exacting requirements for breeding some species, but those conditions are not required for maintaining many species. They are given as an example of those actually measured in a real biotype and, as such, may be considered ideal.

Typically cichlid, "Apistos" are aggressively territorial with regard to same sex conspecifics. The social behavior can be described as polygamous, in which conspecific females (two to several) set up territories and a dominant male protects a super territory surrounding the group of females, spawning with all females in his territory. I have yet to rear more than one male of a given species much beyond sexual maturity, including a group reared in a 30 gallon aquarium! If attempted, I'd recommend plenty of hiding places and separation of males as they mature.

Male "Apistos" will spawn with all the females in his territory as they ripen. Females, as they roe up, become more territorial and take on more and more yellow color. Spawning tends to be secretive, usually on the inside roof or inside vertical wall of a cave. Once guarding spawn or fry, the female remains a vivid yellow and her markings are more clearly defined. She'll assume a head down aggressive posture towards all other animals and is capable of killing the much larger male if he cannot vacate her territory.

The following species are ones which I've kept with varying success excluding my unidentified earlier failures. The ASG number refers to the descriptive listing by the Apistogramma Study Group in their 1980/1981 papers.

A. agassizi (Steindachner, 1875), ASG-1, often referred to as the king of the apistos, is one of the first available, and for some time was "the dwarf" cichlid. Both orange-red and violet fin color strains have been noted. The caudal fin is lanceolate with tapered color pattern which precludes mis-identification. Young fish are sexable at 4 months age and reach sexual maturity at about 8 months age. Found in the lateral tributaries of the Amazon River in Brazil, males reach 3 inches SL and females attain 2 inches SL.

Always start with the most successful experience. The trio for which I bid an obscene amount have been kept quite well for about a year as of this writing.

Apistogramma, cont.-

Set up originally in a 10 gallon tank with coconut shell on the right and flower pot on the left, the male alternated between ends, or hovered behind the sponge filter in the center. The two females selected opposite ends and set up territories.

Both females spawned in their respective territories several times. The female on the right spawned on the inside roof of the coconut shell and raised fry right from the first. The female on the left spawned on the rear outside vertical wall of the flower pot (the only site impossible for me to see). This female failed to raise fry about four times. On the fifth attempt, she became a good mother.

The social and breeding habits of this trio were almost textbook perfect except for one female spawning outside her cave. However the area was within the confines of the rear corner of the tank and the back wall of the clay pot so her behavior may not be atypical at all.

The fry have been distributed to several aquarists in Connecticut and Rhode Island and subsequent spawns are already spoken for, attesting the rising popularity of these fish.

The fry took microworms and newly hatched brine shrimp immediately. Weaning to ground flake and grated beefheart came at 2-3 weeks and the fry were 3/4" SL in about 8 weeks. Fry left with mother fare^d better than those siphoned out at free-swimming stage. Fry were observed "bouncing" off mother, and mother would stir up and/or chew up bottom detritus for fry.

A. cacatuoides (Hoedeman, 1951), ASG#19, is among the larger apistos with males attaining 3 inches SL and females 2 inches SL. The fish has been collected in Guyana and Mato Grosso areas.

With relatively deep body and lyrate caudal fin, the "big mouth" apisto is one of the most beautiful. The third through sixth or seventh spines of the dorsal extend upward forming a brilliant yellow or red "Cocks comb".

Some strains show one or several ocelli on the caudal frequently with the "Cocks comb" color bordered by dark brown or black. This fish is a show stopper!

Many books have pictures of A. cacatuoides mislabeled as A. borelli. This fish has at least three color strains: light blue finned, grey body; red "comb"; and yellow "comb". In my opinion the fish is most beautiful when the soft rays of the ventrals, anal, "comb", and ocelli match in color.

Several specimens were kept quite well in a 20 gallon tank. The only spawn occurred shortly after acquisition and was lost due to unpreparedness.

Apistogrammas, cont.-

One fish developed well enough to win Best of Show but several males wouldn't tolerate each other and eventually the group was lost.

A. steindachneri (Regan, 1908), ASG-10, is probably the largest apisto, with males approaching 4 inches SL and females 2 3/4 inches SL. Collected in Guyana and Surinam, the most striking feature, I find, is the beautiful lace patterned, fan shaped area centrally located in the lyrate caudal fin. The fish is basically brown to rust color with red to yellow highlights in the edges of the dorsal and ventral fins.

One pair was kept successfully for over a year in a 15 gallon tank and spawned several times. No fry were raised either naturally or artificialy. Aside from the possibility of sterility, I've attributed failure to water hardness or, more probably my poor water management. The male did grow to about 3 1/2 inches SL later in a 30 gallon tank so conditions must have been O.K. for maintenance.

A. borelli (Regan, 1906), (formerly known as A. reitzigi, Ahl, 1939), ASG-17, is a lovely mostly blue bodied fish attaining a length of 2 1/2 inches SL for males and 1 3/4 inches SL for females. The blue body is complemented by a yellow opercular area. The caudal is rounded, and the dorsal displays a pronounced trailer extension of the last soft rays. The fish is collected in the central Rio Parana range.

The half dozen specimens I've kept did well until the males matured in a 15 gallon tank, well planted with plenty of cover. Once the population thinned down to three fish, the tank soured. I believe the flow became reduced through the undergravel filter and the poisons produced by anaerobic bacteria killed the remaining fish. Again, I've paid the price for not observing conditions carefully.

A. bitaeniata (formerly known as A. kleei, Meinken, 1964) ASG-2, is the most beautiful of apistos. Males attain close to 4 inches SL and females 2 1/2 inches SL. It is believed to originate in the central Amazon River area.

The dorsal sports a "cocks comb" and is usually tri-colored with the "comb" and base of fin the same color and the central stripe of a complementary color. The ventrals, anals, and caudal fins are fully colored unlike most apistos which only have streaks or highlights. The form with red predominating is the one I find most pleasing.

Apistogramma, cont.-

Apistogramma are among the most beautiful and interesting of freshwater aquarium fishes. Since they require so little space and only a little extra care, I wonder why they are not kept by more aquarists. Their popularity seems to be on the rise in the northeast. Perhaps we'll soon see many more of the species in stores instead of pictures.

Reprinted from The Wet Pet Gazette, Norwalk Aquarium Society.

The National Aquarium (The real one in Washington, D.C.)

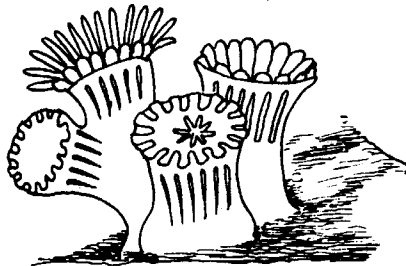
The National Aquarium has recently been renovated and expanded. It houses a variety of species from North American coastal waters, African lakes, South American rivers, the Caribbaen, and other areas. There is also a touch tank with a variety of sea animals and a mini-theater with continuous showings of films on aquatic life.

The Aquarium is located 1½ blocks east of the White House and 1 block north of the Washington Monument in the Commerce Building. Entrance on 14th street. Hours - 9:00 am to 5:00 pm.

The Aquarium is the oldest in the U.S. (est. in 1873) and is supported by the National Aquarium Society. Membership in the National Aquarium Society is \$10 for juniors (under 17) \$15 for individuals, and 25 for families. Benefits include: unlimited admission to the aquarium for one year, an annual subscription to the societied newsletter, a membership card and decal, invitations to special events, and a 10% discount in the aquarium gift shop.

If you wish to join send a check, payable to The National Aquarium Society, to
The National Aquarium Society
U.S. Department of Commerce Building
14th street and Constitution Ave. N.W.
Washington, D.C..20230

The above information was obtained from the National Aquarium Membership Application.



Q and A

Anyone having a question on fish, plants, or anything else having to do with aquariums may send it to Delta Tale c/o John Mangan, 9770 Oleander Ave. Vienna, VA, 22180. Or it can be handed to me at the monthly meetings. The questioners name will not be printed.

Q. Why do red-tail black sharks fight?

A. Apparently red-tail sharks are very territorial and it is usually best to keep only one per tank. I've known them to fight even in very large tanks.

Q. Is it necessary to add dechlor every time you change any water in your tank?

A. This depends on how much you are changing, what type of fish are in the tank, and the condition of your local water. I have two tanks in which I routinely make large water changes with straight tap water with no ill effects on the fishes. On the other hand I also lost an entire tank of fish after only a 5% water change. The above is with Fairfax County water, at work I routinely make 15-20% water changes with straight tap water using Falls Church water. There is no straightforward answer to this question. To be safe though I would recomend that you either age or declorinate your water. Better safe than sorry.

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.

Want: Apistogramma agassizi, A. corumbae, A. ortmani, A. pertense, A. pleurotaenia, A. reitzeigi, Pseudotropheus zebra, fish food, drum bowls, books.

For Sale: 29 gallon setup, leaks but is repairable, \$75 (negotable), large black, male angel \$15 (negotiable), A. steindachneri best offer.

Contact Andy Hill, (703) 281-6484

Want: typist(s), must be able to type neatly and accurately (in other words, better than me), benefits- as much work as you want, no pay, little credit. Contact John Mangan, Delta Tale editor, or the nearest psychiatrist.

Wanted: Axolotls and the chinese golden salamander.
Also any unusual anabantids. Call or write.
Nathan Manwaring (703) 347 4745
Rt.1 Box 456 Warrenton Va. 22186

BOWL SHOW REPORT FOR

January

CICHLIDS

New World Large

1st Blackbelt cichlid-Amy Stirman
2nd
3rd

Riftlake Mbuna

1st
2nd
3rd

Open

1st Aequidans itanyi-Amy Stirman
2nd Tilapia buttikoferi-Amy Stirman
3rd

EGGLAYERS/LIVEBEARERS

Anabantoids

1st Pygmy gourami-Nathan Manwaring
2nd Giant gourami-Nathan Manwaring
3rd Malpulutta kretseri-Gerry Hoffman

Catfish/Corydoras

1st Corydoras reticulatus-Joe Metzger
2nd Corydoras rabauti-Joe Metzger
3rd Corydoras trilineatus-Joe Metzger

Open

1st Madagascar rainbow-Gerry Hoffman
2nd Celebes rainbow-Nathan Manwaring
3rd Red eye Tetra-Amy Stirman

Judge - John Mangan

Judges choice-Pygmy gourami

	<u>MONTH QUARTER ANNUAL</u>				<u>MONTH QUARTER ANNUAL</u>		
Amy Stirman	16	16	16	Nathan Manwaring	16	16	16
				Joe Metzger	14	14	14
				Gerry Hoffman	9	9	9
				Amy Stirman	3	3	3
				Bob Roser	2	2	2
				Jason Kookan	1	1	1
				Julie Lamberth	5	5	5

Next month's categories

CICHLIDS

New World Medium
Haplochromis
Open

EGGLAYER/LIVEBEARER

Guppies
Barbs
Open

BRING CICHLIDS!!!!!!!!!!!!!!

BREEDER'S AWARD PROGRAM

<u>Name</u>	<u>Points</u>
Garland Neese	1,040 ++++
Gerry Hoffman	830 ++++
Pat and Maggi Mahoney	735 ++++
Darrell Holman	640 ++++
Woody Griffin	610 ++++
John Jessup	585 +++++
Vince Edmondson	500 ++++
Ruth Brewer	305 +++
Jim Hajdics	275 ++
Roser Family	170 ++
Art Lembke	165 ++
Wagner Family	165 ++
Frank Angilletta	140 +
Alex Cummins	125 +
Kenny Warren	90 +
Nathan Manwaring	80 +
Amy Stirman	50 +
Pat Gore	10
Ray Krause	10

Recent Spawnings:

Bob and Brian Roser - *Aphyosemion gardneri*
Xenotoca eiseni
Molliensia latipinna

Breeder's Award Committee:

Chairman - Pat Mahoney - 534-0006

Gerry Hoffman - (703) 347-7486

John Jessup - 534-1704

Garland Neese - 548-0557

Bob Roser - 780-7844

BAP Checkers:

Alex Cummins - 656-6355 - Prince Georges County

Ray Hughes - 424-3531 - Montgomery County

Pat Gore - 522-3884 - Arlington County

Jerry Stirman - 941-6729 - Alexandria

Frank Angilletta - 670-8980 - Dale City

Kenny Warren - 378-8838 - Clifton-Centerville

Jim Long - 280-1753 - Fairfax-Vienna

**You are invited to the
Carolina Aquarium Workshop**

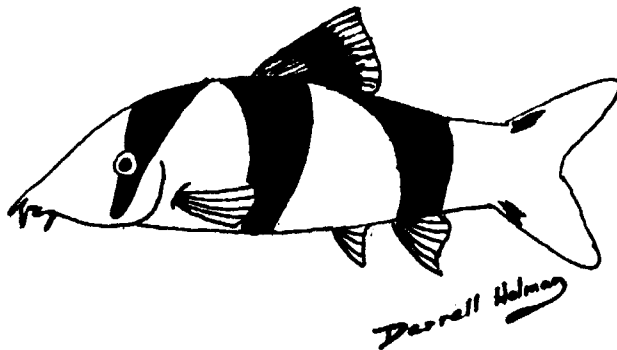
Dear PVAS Members,

I would like to invite you to the First Annual Carolina Aquarist Workshop which is being sponsored by the Raleigh Aquarium Society. The Workshop will be held at the Holiday Inn, North in Raleigh, NC on March 23-24, 1985. We are planning a full day of speakers on a variety of topics that should be of interest to all aquarists on Saturday and there will be an Auction and Raffle on Sunday.

The list of speakers features some of the best in the business: Steve Sommermeyer, Ed Taylor, Charlie Grimes, your own Gerry Hoffman and Ron Thrower. We also will have some manufacturer representatives including Tetra and Eheim. There are several points of interest in the Raleigh area for those family members who are not into fish, but they won't want to miss the Banquet (3 entres buffet) and after-dinner speakers featuring Steve Sommermeyer's video tape of Kenya, Burundi and Rwanda.

The registration fee is only \$8.00 before March 1 and \$10.00 thereafter. The Banquet cost is only \$15.00 and the Holiday Inn, North has guaranteed us a rate of \$34.00/night for up to 4 people/room (their phone number is: (919)-872-7666). Again, I would like to invite you to attend this, our first, Carolina Aquarium Workshop.

See you in March!
David Herlong
CAW Chairman



Carolina Aquarium Workshop

Sponsored by
The Raleigh Aquarium Society

March 23 - 24, 1985
Holiday Inn, North Raleigh, North Carolina

Featured Speakers

Steve Somermeyer: Tanganyikan cichlids; Video tape of Africa

Ed Taylor: Oddball, unusual and difficult fishes; Rainbowfish

Charlie Grimes: Killifish; Humorous look at the aquarium hobby

Gerry Hoffman: Aquatic plants

Ron Thrower: Coral Reefs of the Caribbean

Schedule

Saturday, March 23 - Registration: 8:30 a.m.
Speakers 10:00 a.m.-4:30 p.m.
Social: 6:00 p.m. (cash bar)
Banquet & Speakers: 7:00 p.m.

Sunday, March 24 - Auction of fish & aquarium items
Registration: 9:30 a.m.
Auction begins: 12:30 p.m.
(split: 2/3 seller, 1/3 Rel. Aq. Soc.)

Registration: \$8.00 by 1 March 1985, \$10.00 thereafter
Banquet buffet: \$15.00 · No charge to attend Auction

Send registration to: David Herlong For information
609 Griffis St. call: 919-467-7459
Cary, NC 27511

*Registration
on back.
form will be extra
copies available at
the Feb. PVAS meeting. J.M.*

For all Aquarists, Beginner or Advanced
Everyone Welcomed!

Carolina Aquarium Workshop

March 23 - 24, 1985 Raleigh, NC

Registration Form

Registration:	Total
Pre-registration (before March 1, 1985): \$8.00 per person -	\$_____
Late registration (after March 1, 1985): \$10.00 per person -	\$_____
Raleigh Aquarium Society member*:	\$ 7.00 per person - \$_____
Banquet Registration (Buffet-3 entres): _____ @ \$15.00/person -	\$_____
	Total enclosed - \$_____
Payment by: Cash____, Check_____	

Name: _____
Address: _____
City: _____ State: _____ Zip: _____
Phone: (____) _____

Send registration to: David Herlong, 609 Griffis St., Cary, NC 27511

*You are invited to join the Raleigh Aquarium Society. Dues are \$10.00/yr.

----- (Detach and return) -----

Housing: Rooms are available at the site of the Workshop, Holiday Inn, North located on U.S. 1 north just outside the Beltline. A special room rate of \$34.00/night single, double, triple or quadruple will be available to all attendees. Be sure to mention you are attending the Carolina Aquarium Workshop. This location is a Holiday Inn Holidome and there is an indoor pool and other recreation available. The phone number for the Holiday Inn, North is (919)-872-7666.

Nearby activities: Other points of interest are available nearby for family members who may not want to attend the Workshop. North Hills Mall and Crabtree Valley Mall are a few miles away. The State Capitol and other State Buildings are also a few miles away and include the Museum of Natural History and the new Museum of Art.

Be sure to visit the aquarium shops listed in the program. We appreciate the support these shops have given the Raleigh Aquarium Society during this Workshop.

POTOMAC VALLEY AQUARIUM SOCIETY, inc.



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

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 1985

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

Meetings are held at the John C. Wood Facility, Rt. 237 (Old Lee Hwy.)
Fairfax City. Everyone is welcome.

Meetings start at 8:00 p.m.