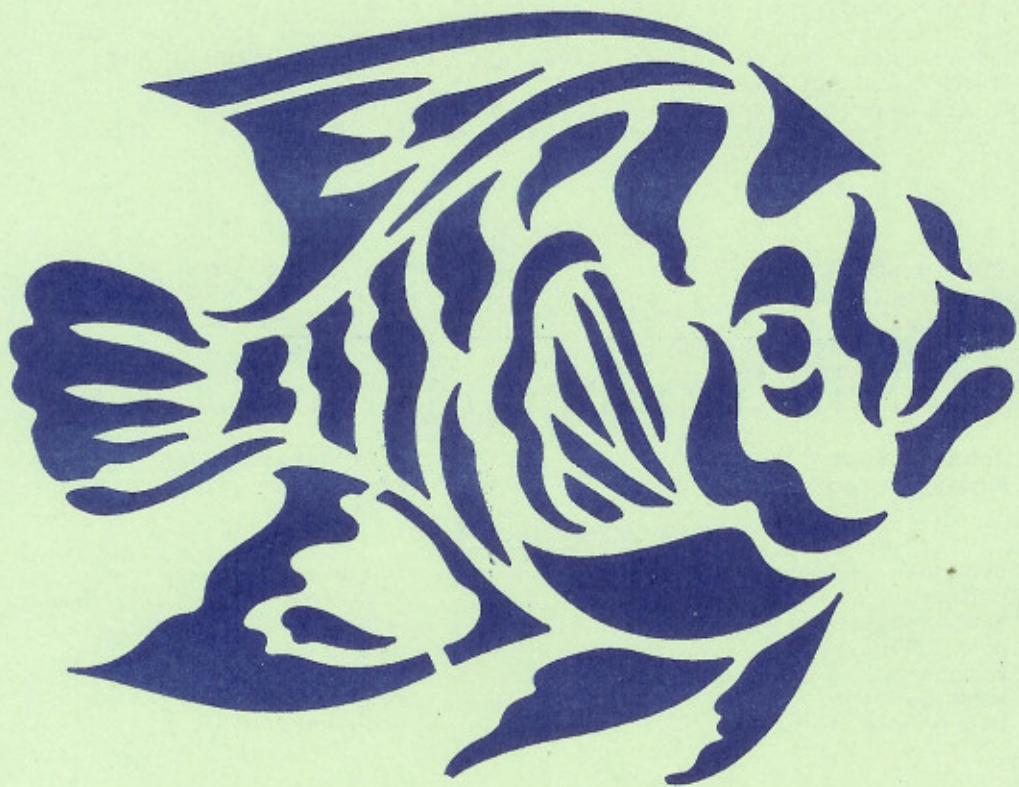


# \* DELTA TALE \*

May/June  
vol 25 #3

OFFICIAL PUBLICATION OF

potomac valley aquarium society



Delta Tale is published bimonthly for the benefit of the membership of the Potomac Valley Aquarium Society Inc., a non-profit educational and social organization. The society was founded in 1960 for the purpose of furthering the aquarium hobby by the dissemination of information and advice, and the promotion of good fellowship among the membership by organized activities and competitions.

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Since I last saw/wrote to all of you I've had a chance, once again, to attend the American Livebearer Association annual convention. This year I was able to make a nice little side trip on the way. The Akron Aquarium Society had their monthly meeting the day before the convention and they invited me to come and speak to them. They're a great group of people, and even pretended to like my talk, and I had a real nice evening with them. It also worked out that Akron was about half way to my final destination of Grand Rapids, so it was a good stopping place for me.

ALA Chairman Rich Serva, who also belongs to the Akron club, hitched a ride with me which helped make the long drive more bearable. While most Presidents and Vice-Presidents aren't allowed to travel together ALA encouraged us to share a ride. They were probably hoping something would happen to the two of us. Hey, wait a minute, maybe that explains the idiot in Michigan that caused me to slam on my breaks and skid off the road. He also disappeared without even bothering to stop and see if we were o.k. Somebody call Oliver Stone. This kind of reminds me of the time several years ago when half of the PVAS board almost drove over the edge of a half built bridge coming back from a meeting in Maryland, but that's another story. We did make it to Grand Rapids and the rest of the weekend went without a hitch. I got a chance to visit with lots of great livebearer people that I don't get to see as often as I'd like, including Pat and Derek Lambert from England. If Derek's name sounds familiar it's because he has been writing a series of articles on livebearers for TFH. And, of course, I also brought back a bunch o' fish, including a very interesting tetra. Yes, a tetra from the ALA convention. You never know what you may come across at things like this. It's called a pink diamond tetra and apparently they think they're cichlids- males dig a pit for the eggs and guard them. Hopefully you'll be hearing more from me about these in the future as mine grow and hopefully spawn. For me to buy a tetra you know it must be something special. Don't tell Gerry Hoffman that I have a tetra in my fishroom, he'll never let me hear the end of it.

If you noticed there's no Presidents Page in this issue. Actually even if you didn't notice there isn't one. Alex is on a long business trip overseas. He's going to all kinds of neat places and I hope he has time to do some touristy and/or fishy kinds of things that he can tell us about when he gets back.

Lastly for this issue- if any of you are wondering, my "kids" (see my march/april column) are all grown up now and doing great. I sure don't miss those 2 a.m. feedings. They turned out to be such great pets that I feel all the trouble it was to raise them was worth it, although at the time I wondered if it would be.

I'm running out of page so that's all 'til next time...



## What's Happening!

- June 13: PVAS Monthly Meeting. Program/Speaker, doorprizes, raffles, mini-auction, refreshments, a chance to socialize with other aquarists, and much more. Meetings start at 8:00pm doors open at 7:30.
- July 11: PVAS Monthly Meeting. All the good stuff mentioned above. Plus- bring all of your leftover illegal fireworks. We can shot them all off after the meeting in the empty lot next door right behind the police station. If I'm late, start without me.
- July 15: American Cichlid Assoc. Convention. San Antonio, TX. For more information contact ACA '94, 6801 Toledo Ct. Ft. Worth, TX 76133. Or talk to one of the PVAS members that also belong to ACA.
- Aug. 8 : PVAS Monthly Meeting. All the usual good stuff. Guaranteed to be more fun than sitting at home in the heat watching reruns on the T.V.
- Oct. 14-16: PVAS Winter Auction & Workshop. Last years workshop was a big hit and this years should be at least as good. Once again the workshop will be FREE to all PVAS members.
- Nov. 1 : Deadline for the Give the Editor Envelopes Full of Cash contest. The person who gives the Delta Tale editor the biggest, fattest, envelope with the most cash in it wins a prize: an all expenses paid (by you) trip for you and the Delta Tale editor of your choice to Acapulco. Don't wait until the last minute. Enter now. Limit 12 entries per person.



PVAS members may advertise in the Trading Post at no charge. Send ads to John Mangan, 9770 Oleander Ave, Vienna, VA 22181, or PVAS, PO Box 664, Merrifield, VA 22116. Deadline for the Sept. issue is Aug. 10.



## MINI-FINS

Michael Hellweg, CFN  
(Certifiable Fish Nurt)

Missouri Aquarium Society, Inc.



### CORYDORAS AENEUS The Forgotten Cory?

How many hobbyists have started with a community tank? I would venture to say most, if not nearly all. I know I did, in that community tank we crammed fish with nothing in common from all over the world, and added some Corydoras catfish as "scavengers" to clean up all our mistakes. Usually, until quite recently, that Cory was probably *Corydoras aeneus*, the Bronze Cory. Bronze Corys were a mainstay, a "bread and butter" fish, from the time of their introduction until just a year or two ago.

The Bronze Cory was introduced to science in 1858 with the name *Hoplostoma aeneus*. Gill (a fitting name for an ichthyologist!) described it from a collection on the Caribbean island of Trinidad. Later it was found all over Venezuela and even reported as far south as Bolivia! Dr. Axelrod recently reported it from the Pantanal in Brazil as well (TFH May 1993) though it may be a "look alike" species. In the late 1800's, the Bronze Cory was moved to the genus *Corydoras* where it remains to this day. The name *Corydoras* means helmeted doras (*Doras* is another catfish genus) and *aeneus* means bronze.

Bronze Corys came to the hobby in the early 1900's through the efforts of German importers like Herr Schnelle of Aquarium Hamburg. One of his boats had a port of call at Port-of-Spain, Trinidad, where local collectors had easy access to *C. aeneus*. Since it can utilize its gut to absorb oxygen from atmospheric air, it was perfectly suited to survive the long trip across the Atlantic in the relatively cramped quarters of the tin fish were shipped in at the time. Once established in Germany, aquarists found *C. aeneus* easy to breed and began to produce them in quantity.

These early captive bred *C. aeneus*, along with wild imports from Trinidad, found their way to New York in 1933, and from there to hobbyists all around the U.S.

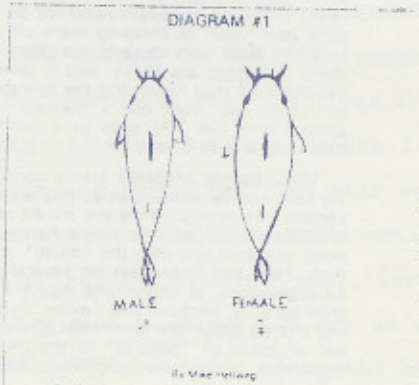
Although small in size, Corys are true catfish. They belong to the catfish family *Callichthyidae*, the Armored Catfish. They are bottom dwelling (except for a few dwarf species), and have downward pointing mouths surrounded by barbels covered with taste buds. They use these to search out food in the murky waters they call home. They are naked—they have no

scales. They are covered with bony plates called Scutes. They have spines in the dorsal and pectoral fins. These spines can easily be caught in coarse nets, so corys should be netted with fine mesh nets to avoid damaging their fins.

Corys have the habit of suddenly darting to the surface and gulping air, and then returning to the bottom. They sit still for a moment and then seem to wink at you. What they are actually doing is forcing the air into their gut where the oxygen will be extracted. Since corys live in murky water with a muddy bottom in the wild, local fishermen watch for surfacing to indicate where a school of corys may be. They then set up their seines to try and catch the school. Since corys are so easy to spot, many countries limit fishermen to one sweep of the seine per area, to enable the wild population to maintain itself.

In the aquarium trade, corys are sold as "scavengers" or worker fish, which will "clean up after other fish and cover up the aquarists' mistakes". Nothing could be further from the truth! Corys are interesting fish in their own right, and deserve better than the table scraps of other fish. Feed them sinking pelleted food such as Brine Shrimp pellets, Tabi Min by Tetra, Hikari Sinking Wafers For Catfish (excellent!) and Trout Chow. They will also eat a variety of frozen foods, worms of all descriptions, and live baby brine shrimp. If you want to breed them, feed them heavily two or more times a day.

Sexing *Corydoras aeneus* is best done from the top. (See Diagram 1)



When breeding it is best to use at least a reverse trio (2 males and 1 female) or a group of several adults of both sexes. To encourage corys to spawn, separate the sexes and feed heavily for a week or so in warm water (80° F - ). Put the corys together in a 10 - 15 gallon tank with slightly cooler water than they are used to. 2° to 5° F cooler should be enough. pH and hardness are no longer important to *C. aeneus* because they have been "domesticated" for so many generations under varying water conditions. My water is about 8.5 pH and 450ppm total hardness, and they spawn for me fairly regularly. Add a sponge filter and a few broad leaved plastic or live plants and let them go.

The spawning act can be divided, like a play, into three main acts:

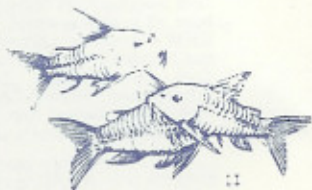
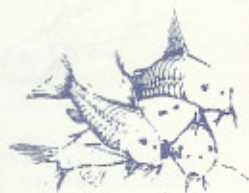
Act 1: The Chase. This Act consists of chasing all over the tank at all levels, up the glass, through the plants, everywhere. This Act can last from a few minutes to several hours, but usually is over in an hour or two.

Act 2: The Cleaning. In this Act the players begin to clean everything that has potential as a breeding site. This includes the undersides of plant leaves, and the glass itself. This Act lasts for a half hour to a couple of hours or so.

Act 3: The Spawning. In this final Act, the play reaches its climax, and the players begin the serious business of reproduction. This Act, once started, is difficult to interrupt short of physically separating the fish. The females nudge the males in the belly, triggering the release of sperm. (the Famous T-Position, see Diagram 2), and simultaneously the female releases from 1 - 4 eggs into her cupped pelvic fins, where they are fertilized. She then rushes off and deposits the eggs in a previously cleaned spot, or cleans a new one and puts them there. Several authorities for years debated whether or not the female took the sperm in her mouth and put it on the spot where the eggs were then pressed, but now most experts agree that this does not happen. Sometimes the female "forgets" to clean a spot, and if she did not smear the sperm there first, these eggs would be infertile, but they are not. Once Act 3 is finished, and the breeders seem to be resting, or searching for food, remove them or the eggs. *C. aeneus* is an avid egg eater. Many texts claim they will touch neither eggs nor fry, but I have found this to be false. The eggs are easily removed by gently rolling them onto your finger or scraping them off with a razor blade. Hold the blade very close to the glass or you will damage them. The eggs are sticky, and it takes some practice to get them off your finger into the container, but it gets easier when you work out a method. Fortunately, *Cory aeneus* lays 200-300 eggs at a time! These eggs will hatch out in 2 or 3 days.

Many people advocate sterile conditions while spawning fish, and for some species this is necessary, but for *C. aeneus* it is deadly. While the fry do require regular water changes as with all fish, newly hatched cory fry seem to need to disappear into the "mulm" at the bottom of the tank. They will disappear for several days before making an appearance, at which time they are miniature copies of their parents. Without this "mulm", your chances of raising a large batch are somewhat limited. Young corys will eat all kinds of "goodies" in the mulm, as well as micro-worms, baby brine, and finely crushed flake food. If

DIAGRAM #2



From: AQUARIUM DIGEST INTERNATIONAL Volume 1  
Spring 1992 Drawings by Burkard Kahn

**NEOLAMPROLOGUS MAGAREE**  
(Lamprologus Brevis)

By

**Jeffrey Burke**

I have read and heard about these dwarf cichlids which live, breed and for the most part spend their entire lives in and around empty snail shelves and I knew that I wanted a tankful of these unique little fish. An area of confusion was the actual name of the fish I bought, the tank was labeled Lamprologus Brevis "Katabe". After researching several books and comparing description and pictures to the fish in my tank I found out that they were Neolamprologus Magaree because of the gold spot above each eye. I set up the left side of divided 20 gallon long for the six new residents. On the left side I had nine empty shells, sponge filter, and the substrate which was crushed coral. The power filter was on the right side. One fish died with no external signs within the first month.

the first month two fish paired up. They claimed and guarded a shell in the front right corner, but if I rearranged the shells they would then claim and guard what ever shell was in their front right corner of the tank. After a few more months I removed the other three and only left the pair. Then the pair went from one shell to another sometimes sharing the shell and sometimes guarding there own shell, but never staying with one shell for very long. I never saw the eggs or wigglers I noticed the fry at about two or three week old not swimming just hopping along the bottom of the tank. On the other side of the divided tank I had Lamprologus

Vittatus fry which were about the same size and age. After several weeks you could tell the magarae fry were growing much faster than the Vittatus. All the fry were in a two square inch area in the right front corner of the tank where the parent use to occupy. After about 45 days the fry were swimming good and about half of the fry moved out of the right corner and took up resident under shells but not in them. The parents do not give the young any attention after about two weeks.

\*\*\*\*\*

#### Corydoras aeneus, cont.

you have a shortage of "mulm", both Sallie Boggs and Ginny Eckstein recommend "sponge grunge" which is basically the gunk you usually get rid of when you clean your sponge filters. Take a couple of really dirty sponge filters and wring them out into the fry tank. The brown gunk is the "sponge grunge" you want! Really! Both of these ladies have raised a lot of corys and it works for them. Dr. William T. Innes, in Exotic Aquarium Fishes recommends a layer of mulm up to 1/2 inch deep! You can't argue with success, it works!

When the fry are about 3/4 of an inch, you can start parting with them. By this time they should be eating the same food you are feeding their parents, and they are ready to join them. Don't forget that corys like to school and for this should have a group of at least six individuals. Just to mention, since the parents are CAT fish, I suppose we should call the fry "kittens"!

I entitled this article Corydoras aeneus, the Forgotten Cory? for a reason. I have noticed

over the past 12 to 24 months that Bronze Corys have all but disappeared from local shops, at the same time many "new" fancy species have put in an appearance. I guess "simple" Bronze Corys don't have the market appeal of Corydoras spotyus-frillyous. Bronze Corys have been around a long time, are tank raised, and domesticated so that they spawn seemingly on command after a water change, and live for a long time. I personally had five Bronze Corys I bought at Bennetts in 1978 and sold at an auction in 1989, still going strong and spawning on occasion! For a dash of color, there is an albino strain which develops a greenish blue face at maturity. Tried and true and still going strong, if you can find them and want to breed catfish, try Corydoras aeneus, the Bronze Cory, first!



FISH.....in the NEWS  
of Amazons, Mollies, and.....the "SPAWN-O-METER"

Alex Townsend, FVAS

**Amazons and Mollies:**

One of the things I look forward to each week is the Tuesday science section of the New York Times. Most issues contain articles on the latest theories or discoveries in the biological sciences. Occasionally I've even found articles on fish. The January 25 issue, however, contained a real find -Amazon Mollies. Really.

Now, I'm certain that to dedicated livebearer enthusiasts (yes, John Mangan, no doubt) the fact that there are such creatures as Amazon Mollies is old news. But it was news to me. What are Amazon Mollies? Well, to quote the New York Times, these fish are one of a handful of species (a few of them are salamanders) of gynogenetic animals -- "all-female species that reproduce clonally, using their own DNA, but relying on the sperm of males from closely related species to spark the formation and development of the embryo." In other words, Amazon Mollies are ALL FEMALES -- no males -- that, in order to reproduce, must obtain sperm from a male of a related species that serves as a chemical "trigger" to start the growth of her embryos. The fry receive none of the genetic material of the "father."

What scientists are excited about here is the answer the Mollies seem to have provided to the old question of why a male animal would mate with a female when there is no possibility of passing on his genes to future generations. (NOTE: don't factor humans in this equation!; it just messes up a neat theory.) Conducting experiments using Amazon Mollies and the closely related Sailfin Molly, scientists at the University of Texas at Austin now think they just may have the answer. It appears that when male Sailfin Mollies consort and mate with Amazon Mollies, the former become much more attractive to the females of their own species. As the Times articles put it, "nothing, it seems, is sexier to a female Sailfin Molly than a sexually successful male...the whole system is really amazing." Amen. (Now, I wonder if John has any of these Amazons in his basement...)

**The "Spawn-O-Meter:"**

Marine Scientists at the Woods Hole Oceanographic Institution "have begun listening in on the private lives of fish." So reported the February/March 1994 issue of the journal Technology Review. It seems that fish, when they "consort," make various clicking and grunting sounds as they release eggs and sperm (and all this time I thought it was my power filter malfunctioning). Using the "Spawn-O-Meter" (no, that's the real name, honest!), positioned over the spawning grounds, computers can detect these sounds and, presumably, measure their frequency and intensity. Over time, continuous monitoring of spawning activity might prove useful in environmental monitoring -- changes in activity, for example, might be an early indication of water pollution. But I can't help wondering if the spawn-o-meter will someday be miniaturized for use on the home aquarium...but then, of course, someone will make it part of the mandatory documentation for the Breeder's Award Program...nah, bad idea...but it would be fun to listen in!

## APPMA's Aquatic Remedies Seminar

BY EDWARD C. TAYLOR

*NOTE: The following is a report and commentary on a seminar dealing with aquatic remedies presented by the American Pet Products Manufacturers Association (APPMA) on March 11 in Tampa, Fla.*

At the outset of the meeting, APPMA President Mark Stern stated that the primary concern of FDA (Food and Drug Administration) was the misdirection of aquatic remedies meant exclusively for the ornamental trade into the food fish industry. John Pitts, DVM, who has been active in all phases of the industry's negotiations with FDA, introduced the government's representative. He was Ed Bullitch, who is director for the "Division of Compliance," Center for Veterinary Medicine for the FDA. His comments on the aquatic remedies problem included the following:

- The FDA's Center for Veterinary Medicine regulates products that are used in the treatment of animals.

- The FDA is, therefore, the federal government's statutory authority to regulate aquatic remedies.

- One of the FDA's first concerns in the area of aquatic remedies was the problem involving Chloramphenicol in 1985. This drug has been banned for sale in retail outlets for years. It is a proven carcinogen.

- The second area of concern was the illegal diversion of Nitrofurazone into the food fish industry.

- FDA is very concerned about how aquatic remedies are labeled and packaged.

- Malachite green is a proven carcinogen as well as all Nitrofurans products.

- Does the pet trade believe that antibiotics should be available freely in a pet shop without a prescription?

- Aquatic remedies, like drugs, must be registered with the FDA as to their use and effectiveness. This requires extensive testing, published results and supportive conclusions that the drug does what it is supposed to do without dangerous side effects.

- There is a lack of scientific evidence that many aquatic remedies are effective.

- Products with multiple ingredients are using an unacceptable "shotgun" approach.

- The authority for the FDA to regulate aquatic remedies comes from the "Federal Food, Drug and Cosmetics Act" of 1906.

- Since virtually no remedies produced by the pet industry have published research or scientific literature that supports how

these drugs are used, they are classified as "new animal" drugs. In order for these products to be sold legally, this testing must be done and the drug registered with the FDA.

- At this time, the FDA is enforcing no regulations concerning aquatic remedies in the ornamental fish industry.

- The aquatics trade should begin applying its own regulations for "quality control" purposes, in case FDA decides to tighten up.

- The "Quality Assurance Monitoring Program" developed by the pet industry is a step in the right direction. It is used to track the distribution of aquatic medications to assure they are not diverted into the food fish industry.

- It was suggested that manufacturers keep records of sales and make them available to FDA inspectors when requested.

- Dr. Ruth Francis Floyd published a report on aquatic remedies that made several important observations. These include: (1) An important area of concern for the trade is packaging. Consumers need only small quantities, while wholesalers and fish farmers require bulk packaging. (2) The safety and efficacy of most medications used in the ornamental fish industry is unknown. Personal experience dictates how a drug is used, and (3) Studies should be done to determine which drugs work and which ones are not needed.

- FDA is receiving many letters from hobbyists concerned that medications will no longer be available from pet shops. They don't want to have to go to vets for prescriptions for their fish.

- FDA is in a policy development mode. It is attempting to determine what degree of regulation is necessary.

Finally, Bullitch enumerated some of the things he would like to see addressed by the aquatic segment of the pet trade. These were:

- (1) All companies involved in manufacturing, distributing and selling aquatic remedies (above the retail level) should register with the FDA.

- (2) All aquatic remedies should be registered with the FDA.

- (3) All companies producing aquatic remedies should implement GMPs (good manufacturing procedures). These GMPs have a well-defined and legal definition.

- (4) A critical review of all aquatic remedies (especially those with multiple or active ingredients) needs to be done. Drugs need to be more targeted.

- (5) The aquarium industry needs to decide

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if it really wants antibiotics to be sold "over the counter" without a prescription.

(6) The industry should limit the distribution of products containing carcinogens such as Malachite green and Nitrofurazone.

#### Questions and Answers

There were approximately 10 questions in the "Q and A" session. Here are a few:

**Q:** What should the ornamental fish industry do to add drugs to the "Low Regulatory Priority" drug list?

**A:** If the ornamental aquatics trade wants a medication to be placed on the "Low Regulatory Priority" list (which means it does not have to be registered), it will have to prove that this drug is effective in curing the ailment it is recommended to relieve, that it is safe for the caregiver to use, and that it is safe for the environment once it has been used. In order to prove these points, tests must be run on existing reference materials must be provided.

**Q:** What is the difference between a drug and a water conditioner?

**A:** If the substance changes the environment, it is not a drug. If it is intended to prevent, control or cure a disease, it is a drug. The difference is whether you are treating the animal or the environment.

**Q:** Have any other livestock businesses been successful at setting up "Quality Assurance" programs?

**A:** Yes, the pork and dairy industries have been able to do this. They are really not as tight-knit a group as the fish farmers, so it should be easier for you. At this point, there is no formal process for implementing a "Quality Assurance" program, so you can do it without contacting FDA.

**Q:** Is any funding available from the government for testing aquatic remedies?

**A:** No! The government only provides funds for searching literature for pertinent references.

John Pitts, DVM, then made a few points concerning the food fish industry. He discussed how these companies have reacted to FDA regulation. He said that veterinarians, in general, are not interested in profiting from FDA regulation of aquatic medications. In other words, he believes they are not actively supporting this move.

#### Commentary

For those of you who read *Pet Business* regularly, you might remember my article in August (1993) on the aquarium trade seminar held by the Pet Industry Joint Advisory Council (PIJAC). The seminar was called "Exploring the Depths of the Aquarium Industry." Even then, a segment was devoted to the FDA/aquatic remedies issue, but noth-

ing of value was forthcoming at that time. Now, things are heating up a bit, but there is still no substantive movement.

I know that concerned members of the trade have been meeting and working to create a "Quality Assurance Program." In addition, some firms are attempting to undertake the actions necessary to register products with the FDA. Both of these efforts are well and good, but I believe they will have little influence on what the FDA decides to do. Here's the scenario as I see it.

The odds are great that FDA will ban all or most dye-based medications which include such chemicals as Malachite green, Acriflavine, Amifine green, Congo red, and Methylene blue. They would also like to ban Formaldehyde, but that might escape for the time being. Also, FDA will probably ban all antibiotics for retail sale in pet shops. It will be necessary for a fish keeper to visit a vet in order to obtain a prescription for medications to treat his or her fish—fish which, in many cases, cost the owner less than the medications themselves. What sort of values is this teaching the consumer? That's simple—"Let the fish die; it's too expensive and too much trouble to treat them."

A real understanding on the part of FDA of the ornamental fish industry and how fish are treated is essential. The number of species that are involved and the techniques used to treat them must be understood. As far as the FDA is concerned, if a fish is sick, a complete analysis must be made to determine what the fish has before it is treated. The problem is, in most cases the fish will be dead long before this information can be obtained. The "shotgun" approach is frequently the only way to save many fishes.

No matter how effective dyes and/or antibiotics may be in the treatment of fish, they may be removed from pet shops because the FDA believes this will protect people from harmful drugs and access to unregulated products. In other words, they are doing it for the good of the consumer.

That's always the line we hear from the government, isn't it? We don't know how to protect ourselves from a specific menace, so the government will step in and do it for us. I have never heard of anyone being harmed by fish medications purchased in pet shops. The FDA seems to be particularly upset that just anyone can walk into a pet shop and buy antibiotics. I say: show me proof that this has caused more than a sporadic number of problems; then I'll believe it.

EDWARD C. TAYLOR IS A 25-YEAR VETERAN OF THE FISH INDUSTRY AND A CONTRIBUTING EDITOR FOR *PET BUSINESS*. THE OPINIONS EXPRESSED IN THIS ARTICLE ARE THOSE OF THE AUTHOR AND NOT OF *PET BUSINESS*.

The sole survivor, Barney Brine Shrimp, needs your help! Trace his path to safety below, or he will become lunch for one of these young angels, but do not cross over any solid lines!!!

*Fun With Fish*  
BY: MELONEY A. HOYT KAS



*"Fish"ish*

A-MAZE-ING ANGELS

# POTOMAC VALLEY AQUARIUM SOCIETY

Post Office Box 6219 Shirlington Station, Arlington, Virginia 22206

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Date: \_\_\_\_\_ 199\_

Name: \_\_\_\_\_

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Where did you hear about PVAS/get this application?

\_\_\_\_\_

Number of aquariums: \_\_\_\_\_ Time in hobby? \_\_\_\_\_

Special interests (e.g., catfish, cichlids, etc..)?

\_\_\_\_\_

Reason for joining: \_\_\_\_\_

\_\_\_\_\_

Membership dues for the Potomac Valley Aquarium Society are:

Family/Individual:	\$12/yr
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Please send application and check for dues to the address shown above.

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Fairfax 978-0745  
Woodbridge 690-1760

### PET MART - TYSONS

8417 Old Courthouse Road  
Vienna, VA 22180  
281-8181

### PETS, ETC - ALEXANDRIA

7688-B Richmond Highway  
Alexandria, VA 22306  
768-2200

### PETS, ETC - CHANTILLY

13932 Lee-Jackson Highway  
Chantilly, VA 22021  
378-2777

### PETS, ETC - HERNDON

462 Eiden Street  
Herndon, VA 22171  
437-0381

### PETS, ETC - STERLING

243-C Harry Flood Byrd Hwy  
Sterling, VA 22170  
430-9667

### PETS-N-THINGS

3081 Nutley Street  
Fairfax, VA 22031  
573-4400

### SUNSHINE PETS

7395-H Lee Highway  
Falls Church, VA 22042  
573-6946

### TANKS-A-LOT

6635 Backlick Road  
Springfield, VA 22150  
703-866-1057

## SUPPORTING MARYLAND SHOPS

### ANIMAL EXCHANGE

765-A Rockville Pike  
Rockville, MD 20852  
424-PETS

### AQUARIUM CENTER

Liberty Road at Offutt Road  
Randlestown, MD  
301-521-4529

### BROTHERS PETS INC.

13810 Georgia Avenue  
Aspen Hill, MD 20906  
460-4600

### CONGRESSIONAL AQUARIUM

162 Congressional Lane  
Rockville, MD 20852  
881-6182

### FISH FACTORY AQUARIUM

582 North Frederick Avenue  
Gaithersburg, MD 20877  
881-6182

### GLENMONT TROPICALS

12345 Georgia Avenue  
Wheaton, MD 20902  
949-0344

### HAPPY PETS

617 Hungerford Drive  
Rockville, MD 20850  
762-6878

### HOUSE OF TROPICALS

7389F Baltimore-Annapolis Blvd  
Glen Burnie, MD 21061  
301 761-1113

### SEALIFE AQUARIUM SERVICE

432-5411

### MARINE CARE SPECIALISTS

15820 Redland Road  
Rockville, MD 20855  
330-0720

### MARYLAND TROPICALS

11229A New Hampshire Avenue  
Silver Spring, MD 20904  
593-1116

### MONTGOMERY TROPICALS

7845-G Airpark Road  
Gaithersburg, MD 20879  
670-0886

### PETDATE - WHITE FLINT

5268 Nicholson Lane  
Kensington, MD 20895  
231-5216

### RICK'S FISH & PET SUPPLY

1003J West Patrick Street  
Frederick, MD 21702  
301-694-9664 301-831-6866

### SHOWCASE AQUARIUM

11248-11250 Triangle Lane  
Wheaton, MD 20902  
942-6464

### TROPICAL FISH WORLD, INC.

16529 South Frederick Center  
Gaithersburg, MD 20877  
921-0000

### TROPICAL LAGOON

9439 Georgia Avenue  
Silver Spring, MD 20910  
585-6562

POTOMAC VALLEY AQUARIUM SOCIETY  
PO Box 664  
Merrifield, VA 22116

Meetings are held at the John C. Wood Facility, 3730 Old Lee Hwy-  
ite 2371 Fairfax City, VA. Room 7 (in the rear of the building).  
Doors open at 7:30. meetings start at 8:00. ALL ARE WELCOME.

