DELTA TALE

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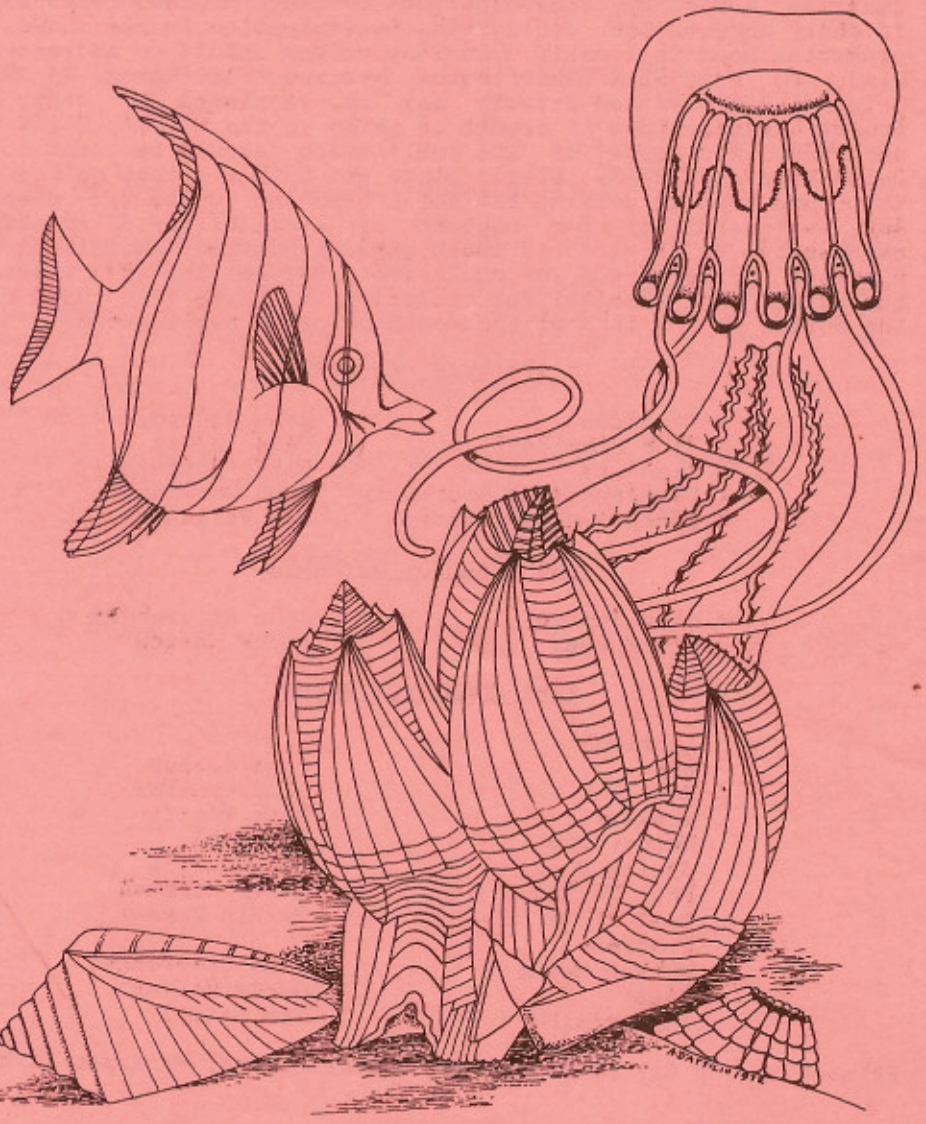

The Delta Tale is published for the benefit of the Potomac Valley Aquarium Society, Inc. (PVAS), a non-profit organization, was established in 1960 for the purpose of furthering the aquarium hobby by dissemination of information, encouraging friendly competition, soliciting participation in its shows, and promoting good fellowship. Correspondence should be addressed to PVAS, PO Box 6219 Shirlington Station, Arlington, VA 22206. Original articles and artwork may be reprinted by other non-profit organizations if credit is given to the author, Delta Tale and PVAS. Two copies of the publication should be sent to the Delta Tale c/o PVAS. Please place the author's name on one copy to ensure 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 18th of the month prior to publication.

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PROPOSED SLATE OF PVAS OFFICERS/BOARD OF GOVERNORS FOR 1989

President:	Pete Thrift
Vice-President:	John Stieringer
Treasurer:	Gene Aldridge
Corresponding Secretary:	Lea Spickler
Recording Secretary:	Bob Pallansch
Board of Governors:	1. R&B Farmer
	2. Kenny Warren

December Happenings

The December meeting, 12 December 1988, will be our Annual Christmas Party at the J.C. Wood Facility, Lea Spickler is again acting as the Coordinator, and will attempt to reach each of you to coordinate the variety of dishes brought. Everyone is asked to bring a side dish, with the club providing the turkey and ham. You and your children are asked to bring, in addition to the side dish, a wrapped $3.00 or less, hobby-related item. Please, nothing alive.

It would help Lea a great deal if you would talk to her at the November meeting or call her: Home - 691-0419,
Work - 471-1559

The party will be at our regular meeting place, the J.C. Wood Facility.

The doors will be opened around 7:00 PM to give everyone time to prepare. The evening will officially begin at 7:30 PM.

PVAS BOARD MEETING - November 7, 1988

President Gene Aldridge convened the meeting at 8:45 pm, chez John Jessup also on hand were Gerry Hoffman, Ray Hughes, John Mangan, Bob Pallansch, John Stieringer, Pete Thrift and Kenny Warren.

Gene announced that the '89 Spring Show will be held May 6/7 at the Wood Center at no charge to PVAS except for $125 to $150 licensing fee. Special considerations discussed were:

- No overnight stay allowed; set-up must be begun Saturday morning and schedule adjustment may be needed.
- Parking will be limited unless we can use adjacent lots.
- We must provide our own auction podium.

Gene also announced that Lea Spickler will be Pot Luck Coordinator for the Christmas Party, and he will cook the ham and turkey as before.

The Board discussed:

- Tax-exempt incorporation procedures; Gerry Hoffman will contact a lawyer to make arrangements.
- Substitution of a program on show preparation for BAP in January.
- The Board passed Gerry Hoffman's motion to award the '89 top breeder (over 70 points) a 70 gal. set-up. Rules to appear in the Jan. Delta Tale.

Chairman Hoffman reported that the Oct. workshop broke even, and the auction cleared about $1,000 (sec. note -- bravo Gerry and Ray!!) and suggested locating in MD next year, possibly with a different banquet site.

Ray Hughes was authorized $50 for Gwen Hammond for the Workshop Brochure art work; he agreed to contact The Wet Pets proprietor about a future program.

Before adjourning at 9:30, the Board nominated Pete Thrift, Ray Hughes, and Gene Aldridge for the '88 FAAS Award.

Respectfully submitted

Robert Pallansch
Recording Secretary

CICHLID LOVERS: COMBINE YOUR HOBBY & FAMILY FUN

American Cichlid Association
Public Relations Committee (9/88)

August 1989 will offer an extraordinary opportunity for aquarium enthusiasts to wallow for four days in the subject nearest to their hearts, covered from A to Z ... while also pleasing their families in a BIG way.

The American Cichlid Association (ACA) is presenting an "International Cichlid Conference" (ICC) August 10-13, 1989 in Orlando, Florida.

Speakers are coming from all over the world. Tony Ribbink, one of the most respected researchers on the cichlids of Lake Malawi. Ad Konings from Holland, who has just finished a book on Lake Tanganyikan cichlids. Fish nutrition presented by Drs. Ford and Klonz. A video of diving in Lake Tanganyika by Walter Dieckhoff. A symposium on angelfish. And, that's just a sampling.

Orlando is one of the most sought after vacation spots in the United States. The Hyatt Orlando is offering special rates, $68 a night - both for the conference and for several days before and after. It is located close to Disney World and EPCOT Center. The Hyatt itself has swimming pools, tennis, playgrounds ... more than enough to keep any non-fish lover in the family happy and amused while others are "fishing".

On Wednesday the 9th there will be a special tour of Sea World at reduced rates, including a behind-the-scenes tour for ICC folks only, as well as the opportunity to see all of the exhibits and shows, catch a meal, and see the end of the day fireworks.

Friday there will be tours of two Florida fish farms. Ekk Will Tropical Fish and Segrest Farms. They are not open to the public, so is not something the casual tourist could see. The ICC will provide buses for the 90 minute trip, and the farmers will be glad to answer questions. Friday evening's meal will probably be at one of the farms.

The ACA is calling it an "International" Conference because fish and cichlid lovers from all over the world are being invited ... and have already shown real interest in attending. Enthusiastic response has been heard from England, Japan, Holland, Germany, as well as Canada.

You are urged to make reservations as early as the first of the year. The Hyatt Orlando will hold a block of rooms for the ICC, but it is an enormous complex ... almost 1,000 rooms ... and they want to fill them all. If they don't hear from ICC attendees early they will sell the rooms out from under us.

It's a great opportunity to combine family fun, hobby learning and getting acquainted with new people and new fish. The big auction on Sunday will offer fish you may never have seen before. Make your plans NOW to attend. For information: ICC, 419-A Hidden Brook Dr., Glen Burnie, MD 21061 USA

******* PVAS PROUDLY BRINGS TO YOU!!!! *******

****** STRAIGHT FROM OUR FOREIGN CORRESPONDENT!!!! ******

Special Fish from Norway
by George White, PVAS

Have you ever had the misfortune of discovering that one of several of your prized fish have fled their aquarium and dehydrated themselves? Usually the brightest colored specimens with the best finnage pull this stunt, expecially if they are killifish.

Fishermaen in northern Norway, above the Arctic Circle, have a long tradition of drying their catches in winter. Areas such as the Lofoten Islands are dotted with huge fish racks thirty or forty feet high. The fish, usually cod, are hung on the racks during the winter when freezing temperatures prevent bacterial blooms and the wsubsequent spoilage of the fish. By the time the spring thaw comes, all of the moisture has been frozen-out (literally freeze-dried) or sun-dried.

The Norwegians have, over the centuries, developed several good ways to eat dried fish. It can be soaked in water to re-hydrate it and used in soups, fish balls (similar to potato dumplings, but with more taste), or in other fish dishes. Perhaps the best way tis to simply slice the dried fish into small chips and use it as snack food. Dried fish makes a much healthier snack than potato chips and such high fat junk. The label on the package of "Mortensen's Delicious Sun-Dried Fish" indicates that a hundred grams of it contains 83 grams of protein and only slightly more than a half a gram of fat! The classic way to eat dried fish chips is with an ice cold can of arctic beer from Mack's brewery in Tromso.

The dried cod chips may be a real taste treat, but I have my doubts that the same could be said for aquarium fish such as goodieds...dried goodieds probably do not taste any better than they look. I will gladly send a can of arctic beer to the first person to think of a good use for goodieds other than as food for humans or cichlids.

NATURAL HABITAT TANKS

by Phil Higby, Y.A.T.F.S.

Reprinted

One of the fascinating things about the hobby of aquarium keeping is the many ways in which one can enjoy it. You may establish community tanks, breed for pleasure or profit, become a fancier of a particular species, write hobby articles or try aquarium photography. These are but a few and the approach to any of these may be very scientific or less so, depending on the individual.

My first venture was the setting up of a small community tank. This led in the near future to several more tanks, as by then I had to have every new fish seen in the aquarium stores. Gradually I became interested in certain favorites and later on in breeding. My basement now contains sixteen tanks used for breeding and other experiments. During this period I became interested in "Aquascaping." I do not remember where I picked up this term but it is a good one. Experience proved that too many species in one fish tank makes a very distracting picture rather than a relaxing one. About four each of not more than three species in a ten-gallon tank makes a more balanced picture. However, I really like, depending on size, not more than seven fish of one species in a well planted ten-gallon tank.

Natural history museums and public aquariums usually have arrangements of plant and animal life closely simulating natural environments. Why not duplicate such an environment in the home aquarium? The Rasbora from Malaysia and the guppy from our hemisphere are not from the same type waters. Yet how often we see fish from all types of localities and conditions grouped together in one tank. This may account for the fact that sometimes in community tanks certain fish thrive while others have trouble. It happens that the particular conditions of a given tank favor certain species. In what I refer to as a "Natural Habitat Tank," fish, plants, scavengers, rock-work, and water conditions would, insofar as possible approximate those of the natural environment. Naturally we must consider the fact that sometimes the exact materials of a given area may not be available. In this case enough latitude must be given to allow the use of a reasonable substitute.

"Thought is father to action." so emptying a ten gallon tank, I prepared to bring a bit of Malaysia into the living room. For this experiment Rasbora heteromorpha, one of the more popular fish, was

used. The natural habitat of this fish is described as being small creeks and pools sometimes almost fully overgrown with jungle plants. The water is acid, very soft and with an average temperature of 75 degrees. Thickets of Cryptocorynes are found, usually growing from a bottom covered with rotting stems and leaves. Schools of Rasboras swim about now in the plant growth and then into the more open waters.

To imitate this environment the tank was painted with dark crystal paint on the back and light green on the sides. Pieces of red shale were leaned against the back and the crevices between stuffed with Everlast spawning grass. This was to depict the underwater bank of the stream. I am not sure if red shale and a similar moss are found in Malaysia, so the use of the above two items probably constitutes necessary items of substitution as mentioned above. At least it did provide a natural appearing background. Next potted plants of a semi-tropical nature were placed behind the tank so that they over-hung the edge. The bottom was covered with one inch of medium gravel and the tank filled with a prepared mixture of distilled and aged tap water. Various sized Cryptocoryne plants were positioned along the back and curving forward to the right center, which was then heavily planted.

A bottom heater was placed behind the red shale and attached to a thermostat in a quart jar hidden behind the tank. The green cord connecting the two was camouflaged by the plants overhanging the rear edge. Water was set at pH of 6.6, DH of 10 and a temperature of 78 degrees. pH was maintained by chemical means and DH by siphoning out old water and replacing with distilled. A sixty watt light bulb with a circular reflector was hung ten inches above the water in a manner similar to natural conditions. Now I felt I had a reasonable facsimile of the Rasbora environment.

The setting was completed by placing seven mature Rasbora heteromorpha into the tank and hanging a descriptive card on the side. This card contained data as to locale and habits of the fish. Sometimes the fish could not be seen at all, and then they would swim out of the planted area and reveal themselves in the open area. The effect was rather mysterious, and for several months this set-up was a point of interest in our house. The pleasure of this tank came from the fact that it was more than just an aquarium .It was a living bit of Malaysia right at home.

A second setup was made depicting the South American area. This one simulated the environment of Hyphessobrycon gracilus, the glo-light tetra. A third arrangement was that of the blind cave fish. For this I used only rock-work with an opaque top cover and side light to give the appearance of water in a cave.

The above "aquascapes" had been made using only natural materials, as I do not like artificial effects. However, this is strictly a matter of personal preference. Noticing the increasing number of

artificial plants and ornaments appearing in the stores, I decided to create a completely artificial tank. Again a ten gallon tank was used. The sides and back were lined with a mirror-backed reflective material. The bottom was covered with one inch of green sand and pieces of red shale were placed at the back corners. Small pieces of black, white and transparent quartzite, several pieces of colored coral and a plastic starfish were scattered about and finally red and green Colorferns were placed along the back and sides. The water was tainted lightly by the addition of a few drops of Methylene Blue. Now five Ambassis lala, glassfish were placed in the tank. They were used because of their odd diamond like shape and semi-transparency. A total of six colors was used in this setup. The effect was quite exotic and drew comments from visitors, particularly the fair sex. A card was hung on this tank bearing the title "The Silicon Fish From Planet X".

There is no limit to the pleasure you may have in setting up different varieties of tanks. In describing the above "aquascapes" I have attempted to point out a further extension of the use of community tanks.

EDITOR'S NOTE: This article by Phil was originally published in an old aquarium publication called The Aquarium. It ran in the June 1959 issue. Funny how the whole article could run in any publication today, and never age.

Reprinted with permission from The Youngstown Aquarist, publication of the Youngstown Area Tropical Fish Society October 1988, pp. 6, 16-17.

Small Beauties Q the Rainbow Goby
Peter Monaghan, D.D.S.
Suburban Aquarist Society

A very attractive freshwater aquarium fish is the Rainbow goby, Taturndina occellacauda. The fish grows to about 1 and 1/2 inches in length and has bright colors. True to its English name, its colors are a potpourri of blues, greens, reds, and yellows. Both sexes have a dark eyespot at the base of the caudal fin. The male's colors are more intense and the female has a whitish belly that plumps when she is ready to spawn.

Being a small species, T. occellacauda thrives in a small tank. A two gallon tank is adequate so a pair make a perfect desktop display. These fish are not fussy eaters but do relish small live foods. The Rainbow Goby has a large mouth and can handle most aquarium foods quite handily. When they get live foods, they spawn readily.

My pair lives in a ten gallon space. Large black pebbles covering the bottom, a corner filter, some flowerpot fragments, and a short length of 3/4" PVC decorate the tank. They eat newly hatched brine shrimp, frozen brine shrimp, and excess Cichlid fry. The water temperature is 82! F and the pH is 7.6. I change 10 - 20% of the water each week.

T. occellacauda use the PVC tube as a spawning site. They clean the inside of the tube about a day or so before spawning. Spawning takes place in the early morning when the female deposits about 30 eggs on the top internal surface of the tube. The male then fertilizes the eggs and both parents guard them for about a day. The female leaves the nest and eats heavily while the male continues to protect the spawn.

About a week after spawning, the eggs hatch and the fry remain stuck to the tube. I remove this tube and place it into a tank of its own. The tiny fry swim freely about a week later. When I remove the PVC tube, I place another one into the breeding tank and within a day the parents spawn again. If the fry swim freely in the breeding tank, the parents will eat them greedily.
For their small size, they have large mouths and easily eat live baby brine shrimp. Even though they eat heavily, they grow slowly. Raising two spawns in the same tank is possible since spawning occurs so quickly and the growth rate is rather slow.

Because these fish display beautiful coloration and patterns, they should be popular commercial fish. Their diminutive size makes them excellent inhabitants for small tanks. Pairs prefer a tank of their own and fight if enough space is not available to them. This is their only drawback. They do not bother other species as long as they cannot swallow them. T. occellacauda is a species that anyone can keep and enjoy. I recommend them to anyone.

A Nicely Edited Message Thread Concerning Acclimating Fish to New Tanks

From Ed Bauman

This weekend I was in a store that gives each customer a sheet of paper with the following information. I invite your comments. "Dangers of Floating Bags: If temperature alone were the only measure, it would be safe to float shipping bags. However, far more dangerous than temperature is carbon dioxide poisoning. This causes brain damage from prolonged (anything over two minutes) oxygen deficiency. More than half the damage during shipment can come in the last five to ten minutes if the bags are floated. Floating cuts off carbon dioxide exchange through the plastic film. This may cause permanent brain damage and loss of physical and mental functions. This can result in disease and death hours or days later. The best way to handle shipping bags is to pour the contents into a soft net set over a pail. Place the fish, whether colder or hotter, directly into the aquarium. Do not let the net touch the new water. Never put shipping water into your aquarium. If the shipping water is too cold, the fish cannot be placed in proper 78oF water too quickly. The longer the chill, the more chance for ich and illness. If the shipping water is too hot, the need to be put in proper 78oF water is even more critical as the extra ammonia in all shipping water is more toxic while hot. On most fish farms, fish endure 20oF changes without harm while feeding in hot upper waters (90oF) and diving to the much cooler bottom (70oF) when frightened. Rapid changes are much less dangerous than generally realized.

From John Benn

I've never heard of this store's "reasoning" in anything I've read. While I accept John Kuhns' comments as valid "reasons", this store has certainly taken it to an extreme. I'd NEVER dump the fish directly into the tank. This is most stressful for the fish

The store is out to lunch on this one? Did you say anything to them or is this being kept for the FISHNET column? <smiling>

From John Kuhns

I _never_ recommend the floating of bags either. I have _heard_ that polyethylene bags can exchange gases below the water-line, and that this may be important in

shipments where the shipping time has been greater than 24 hours, _but_ I have never read any authoritative literature to support this hypothesis. I can't recommend the floating of bags for (at least) the following reasons: (1) the bags are probably dirty or contaminated on the outsides, (2) water from the bags might get into the tank, (3) floating prolongs the fishes exposure to potentially toxic substances and stressful conditions in the bag's water, and (4) _if_ getting the fishes to the correct temperature was the object then transferring them to the new tank as quickly as possible would be far superior than allowing them to languish in the bags. I have found it necessary in some instances to correct the water chemistry in the bags, and to bring it around to that of the new tank's chemistry before removing the fishes and placing them in the new tank, but such methods are not needed often and even fishes, like baby discus, which are considered by some to be quite touchy will benefit from being netted from the bag and placed directly into the new tank. The use of Novaqua, as I kind of in-between measure, in both the bag and the new tank just before placing the fish in it, can be useful too.

From Bill Rogers

The KEY WORD here is Stress and what your asking is whether Stress due to low DO levels, high ammonia or nitrite levels OR a combination of the 3 are less Stressful than a possible temperature or pH difference. As I do with most of what I say, I am relying on personal experience and records that I maintained when comparing doing it both ways.

Keeping in mind that receiving a wild shipment that may have been bagged for upwards of 24 hours is a bit trickier than carrying home a fish from the local store, I have found that losses <not including DOAs> are about 10 times greater IF fish are "acclimated" in the manner that most fish references describe. I have been just "dumping" fish with no regard for temperature differences for several years. The Novaqua does in some measure protect the fish from differences in pH and temperature shock.

If you talk about extremes then the decision becomes tougher. If you had a bag of fish that was 38oF and measured 15 ppm ammonia then exposing the fish to a 40o temperature change would be crazy yet leaving them in the "ammonia soup" any longer than absolutely necessary would also lead to probable damage or death. What I would do in this case is to dump the fish immediately into a trash can <water and all> and add 10% new water every 3 minutes along with heavy aeration. When the total volume was

tripled or temperature got within 10o of what I was looking for the fish get netted and placed into their normal quarantine tanks. Both Novaqua and AmQuel and salt would be used as necessary throughout the process.

I sometimes feel like a walking commercial for JOHN KUHNS, 73307,2052, but when a product works, it works and I say so Novaqua and "quick dumping" have saved me thousands of dollars in fish and I will continue to use the product and recommend the "procedure". The AmQuel is a bonus product that will temporarily solve an ammonia problem. Used properly it will always have a place in my medicine cabinet.

From Ed Bauman

So, it appears that virtually every book on aquariums and fishkeeping is wrong about the best method for introducing fish into an aquarium. Is that correct? It seems rather strange that it's okay to subject the fish to abrupt temperature changes when introducing them into the tank, but that the temperature is supposed to remain constant, +/- 2oF, once they're in it. Should readers of _AFM_ be advised that concerns about water temperatures are unnecessary? I find this contradiction rather bizarre. Equalizing water temperatures between the tank water and the bag water is a basic rule for aquarists. Is this advice incorrect, unimportant or only applicable for certain species? Waiting for responses with great anticipation.<grin> Come on Steve (M.), you can't be that busy.<grin>

From John Kuhns

One of the causes of this concern appears to have been handed down to us from our European forbears: great changes in temperature, say from 20oC to 30oC _might_ be a problem for some species; changes from 15oC to 30oC _might_ be a problem for the many species; changes from 10oC to 30oC _might_ be a problem for the majority of species, and changes from 5oC to 30oC _might_ only be survived by very small number of species (say desert pupfishes for instance). NOW, lets look at these same temperatures in terms of degrees-F... 20oC to 30oC would be 68oC to 86oC that's an 18oF difference, and from 15oC to 30oC is a 27oF difference, and 10oC to 30oC is a 36oF difference. Generally speaking, I'd recommend that if the temperature difference, between the bag and the destination tank, is 20oF (or less then simply net the fishes from the bag and put them into the tank. If the temperature difference is greater than 20oF then I recommend that the chemistry of the bag be carefully

checked (especially ammonia and pH), and assuming that adding water from the tank won't cause a sudden excursion of free ammonia levels to intolerable heights in the bag, then I'd simply bring the bag's temperature to near that of the tank by adding tank water over a 10 to 15 minute time span, then netting the fishes out and placing them in the tank. Allowing the fishes' metabolism to "warm-up" (as it were) in a bag of waste chemicals and microorganisms, which are being somewhat held in check by the low(er) temperature would, in my opinion, simply increase the stress load on the animals, and to transfer them to a better environment as quickly as possible is, logically, the best approach.

From Steve Szabo

I believe that this whole thing about the floating of poly bags or not floating them started several years ago with an article published in a local society magazine. There was a brief flare up of debate and then the thing seemed to die down. I guess everyone just went on doing things the way they always had. I never saw, or recall seeing, any references to support either side. I believe I have a copy of the article somewhere. If the interest is here (and I think it is) I'll take a look for the article and upload it for perusal.

From Steve Meyer

I have to dissent a bit from the tone of this thread, but only a bit. It turns out that much work on the impact of temperature changes of fish health has been done over the last 20 years. And it turns out that the magnitude of that change is far less important than the DIRECTION! Specifically, even sudden SMALL temperature drops can have a devastating effect on fish, related to gut stasis and a host of other metabolic shut downs. On the other hand, as JOHN KUHNS, 73307,2052 noted, even rather large 10oC increases do not really affect fish that much.

Now, it seems to me that in most tropical fish keeping you are almost ALWAYS going from cooler temps in the shipping bag to warmer temps in the tank and so direct transfer will usually cause no problem. There are, however, some delicate species and will almost certainly be individuals that succumb.

However, the movement of COLDWATER fish such as goldfish raises a more delicate problem because it is quite likely that they will go from warmer transport bags to cooler ponds and tanks. This is dangerous and is frequently associated with goldfish bloat and outbreaks of systemic

aeromonad infections. So, at the risk of disagreeing I think temp change deserves more attention in the case of coldwater fish than warm water fish given the likelihood that the temp difference will be negative in the former case.

Now here is what I do: First I open the bag and measure the water temperature in the bag. Next, alter the water temp in my QUARANTINE TANK or POOL to match the bag. [Funny, none of you mentioned the quarantine tank. After all the messages on this subject it just evaporated. Sheesh]. Then I move the fish from the bag to the quarantine tank/pool. No fuss, no muss, no trouble.

It seems to me that if you folks actually used quarantine tanks then you would not have even think about this problem. [Yes, Bill, I agree you have a special situation given the stock you carry and I would do what you do if I were in your shoes. So this part is not relevant to your case.] Then you could slowly raise the temp in the quarantine tank.

One last note. In the spring I always face this problem when I move my koi outdoors. Invariably, the holding tank temp is higher than the outdoor pond temps. Here, I float large garbage pails in the ponds 1/3 filled with holding tank water and let them equalize over an hour or so. Then I dump in the pails. On the few occasions where the koi jumped out of the pail and the water was about 5oC cooler, those fish did have problems eating and digesting for WEEKS while the other koi went right to feeding. Those "jumpers" also failed to spawn that season.

Anyway, here is another reason quarantine tanks.

BY THE WAY, standard plastic bags do not permit any significant gas exchange wet or dry. People have mistaken the deflation that occurs when CO2 replaces O2 in the bag due to respiration. Nevertheless, as Bill said the collapsing bag can suffocate the fish.

From John Kuhns

Novaqua, when added to the bag _and_ to the tank will assist in the narrowing of the differences of the bag's and tank's pH's. That occurs because of the modest buffer which is an integral part of Novaqua's formula (I can usually state the exact buffering capacity, but can't seem to remember it...I'll look it up at the office and report back). If, however, either or both of the waters are more strongly buffered (than what the Novaqua can buffer them), then Novaqua will have no effect on the pH (that's why no

claim is made for this effect in sea water). As for temperature...well I have no data on that subject. Bill suggests that the skin-slim replacer can assist in that regard, but I can't support that (unfortunately!).

From Jerry Corcoran

Is it appropriate to talk only of one type of stress when referring to new additions to an aquarium ? After all, there are more stresses that are ignored and I think the gestalt theory may be in effect in most cases. That is the end result is greater than the sum of all the stresses.

If I may expand. From the time a fish is caught the stress begins. It is subjected to physical stress (shock) from the net, visual stress by being plunged into total darkness in a box, more visual shock when the box is opened in a brightly lit shop, more physical shock when it is again caught in a net, thermal shock coupled with pH shock when it is dumped into the aquarium, more of the same when it is sold and transported to the home.

Come to think of it, it is impossible for any fish to survive. (grin)

Seriously, I believe that any thing that can be done to ease or remove any or all of these items can only be good for the animals. Therefor, it stands to reason that there is a good reason for slowly acclimating the fish to the new temp. in an open bag with an airstone placed in it.

From Chuck Lawson

I use a 'compromise' between the JOHN KUHNS, 73307,2052 method and the others: I open the bag and suspend it in a clear pitcher (or dump it into the pitcher (note that a pitcher probably won't work for koi [grin])), add Novaqua, Amquel, and heavy aeration. I then Novaqua my quarantine tank, and start adding a cup of water from the tank to the bag every five minutes, until the original water is about 1/4 of the total content. After this is finished, I pour the fish out into a net over a bucket, add the fish to the quarantine tank, clorox the shipping water, the bucket, the pitcher, and the net, and dispose of the water. I'll go ahead and wait a few minutes before adding the airstone from here out (do you suppose I should wait to add the Novaqua too? It could buffer the pH up fairly rapidly as well in that kind of situation, I suppose.)

I had quite good luck with John's 'Novaqua and Dump' method, until recently - I had some Tanganyikan cichlids that didn't handle it very well at all, and went into

serious shock within seconds - I lost over half of them in 10 minutes, and 3/4 of them by 6 hours. I wasn't able to track down the cause once I had gotten the survivors settled; I checked temps before I dumped them, and it was within 1oF. By the time I had a moment to check the bag pH, it was at 7.4, and the tank was measured at 7.5 just beforehand. It's possible that the pH in the bag water had risen considerably before I checked it, from the Novaqua and exposure to air. The fish all appeared fine in the bag before I started. Tank ammonia and nitrites were at 0 throughout.

TRADING POST

For Sale:

- Brand New O'Dell 29 gal woodgrain tank, sliding glass top, and matching fluorescent strip light. Wooden stand with shelf for second tank. Brand new Aquaclear filter. 150 watt submersible heater. Asking $75 for all, or $55 for tank, top, and light along.

- Used black-trim 29 gal tank with glass cover. Good condition- $20.

- Used 2.5 gal tank with plastic cover. Good condition - $5.

- DISCUS - I have several brown discus, all about 15 months old. No history of disease, healthy, not picky eaters. I have raised ten of these fish from the size of a quarter, and now have too many. $15/ea

Call: Pete Thrift at 971-0594

For Sale: 3 Pike Cichlids, species unknown, 4"-5" $15 for all three.

Call Chris Bergesen at 229-6043 (Bethesda)

BOWL SHOW REPORT FOR
November

CICHLIDS

Angelfish/Discus
1st R. Hammond - Marble Veil Angel
2nd R. Hammond - Silver Angel

New World (all other)
No Entries

Mbuna
No Entries

Haplochromis
No Entries

Riftlake - Non-Mouthbrooder
No Entries

Open
No Entries

EGGLAYERS/LIVEBEARERS

Livebearers
No Entries

Characins
No Entries

Catfish
1st J. Stieringer - S. angelicus
2nd R&B Farmer - C. panda
3rd R. Hammond - S. lace

Sharks & Loaches
1st J. Stieringer
Misgurnus fossilis

Anabantoids
1st R. Hammond - Chocolate Gourami

Open
1st T. Fitz - N. korthausae*
2nd T. Fitz - N. guentheri
3rd L. Wilkie - Blue Gularis

* Judge's Choice

Totals through August 1988

	Month	Quarter	Annual
K. Muller	-	-	1
R&B Farmer	-	-	25
G. White	-	-	33
R. Hammond	20	20	26
J. Hoffman	-	-	6

	Month	Quarter	Annual
T. Fitz	22	34	131
R. Hughes	-	-	9
K. Muller	-	-	5
R&B Farmer	10	16	62
T. Williams	-	-	1
J. Stieringer	30	30	64
T. Hetzel	-	-	11
J. Mangan	-	-	29
R. Hammond	16	16	18
B. Pallansch	-	-	23
J. Hoffman	-	-	23
L. Wilkie	6	6	6

December: Christmas Party - awards - no bowl show.

APPLICATION FOR MEMBERSHIP

Date: _____ 19_____

Name: _____

Street: _____ Apartment: _____

City: _____ State: _____ ZIP: _____

Telephone H: _____ W: _____

Occupation: _____

Where did you hear about PVAS/get this application? _____

_____

What fish do you keep/topics are you interested in?

POTOMAC VALLEY AQUARIUM SOCIETY
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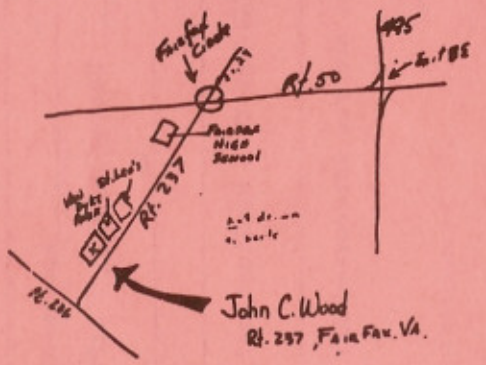

The Potomac Valley Aquarium Society will meet on the following dates in 1989:

9 Jan	10 Apr	10 Jul	16 Oct
13 Feb	8 May	14 Aug	13 Nov
13 Mar	12 Jun	11 Sep	11 Dec

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

Everyone is welcome!!!