

* DELTA TALE *

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DELTA TALE

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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What's Happening!

Seems like only a week ago that I wrote one of these. Actually it was only a week ago that I wrote one of these. I'm trying, once again, to get back on schedule. As I'm writing this the May/June issue is at the printer and I plan on dropping this one off when I pick that one up. You should (notice I said should) get this issue right about on time. All I have to do now is stay on schedule. Of course it would be a little bit easier if I had more stuff to print (hint, hint, hint) article artwork, etc.

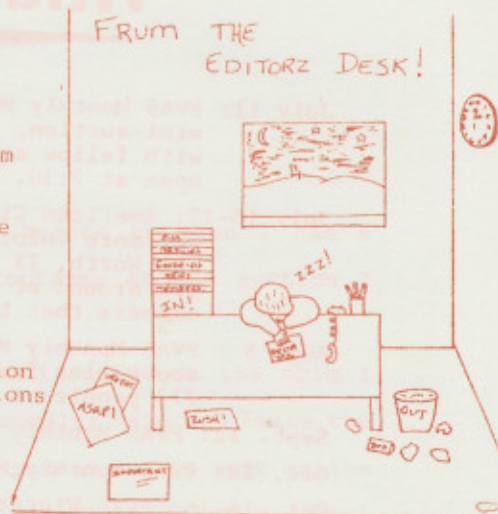
If you didn't make it to our spring auction you missed lots of good stuff. Congragulations to everyone that brought stuff. You did a good packing job this time. Unlike the previous auction where there was loads of stuff bagged very badly, almost everything at this one looked pretty good. Try to keep up the good work. We have another auction, and workshop, coming up in Oct. so start planning ahead. All of the information you need about these will be in the sept/oct issue.

No president's page again in this issue. Alex is still away but will be back in plenty of time for the next issue. So if you miss him don't worry.

This is a pretty short column but I don't really have anything else to say. So- have a fun summer, but don't forget to take care of your fish.

Until next time...

John



CALVIN AND HOBBS BILL WATTERSON



What's Happening!

July 11: PVAS Monthly Meeting. Program (TBA), door prize, raffles, mini-auction, refreshments, and a chance to socialize with fellow aquarists. Meeting starts at 8:00pm doors open at 7:30.

July 15-17: American Cichlid Assoc. Convention. San Antonio, TX. For more information contact ACA'94, 6801 Toledo Ct., Ft. Worth, TX 76133. If it's too late for you to write ask around at the PVAS meeting, there are several PVAS members that belong to ACA that can help you.

Aug. 8 : PVAS Monthly Meeting. All the great stuff mentioned above plus free airconditioned seating to the first 273 people to arrive.

Sept. 12: PVAS Monthly Meeting.

Oct. ~~10~~: PVAS Monthly Meeting. *See note below.

Oct. 14-16: PVAS Winter Auction & Workshop. Free workshop admission for PVAS members. This is still in the planing stages but we have a great tentative list of speakers. Complete details in the next issue.

Nov. 14: PVAS Monthly Meeting and election of next years officers. It's not too early to think about running for an office. We need to get some new people involved.

Dec. 12: PVAS Monthly Meeting/Christmas Dinner.

* I just remembered that in Oct. our meeting can't be held on the second monday of the month as usual. This day is Columbus Day and the building where we have our meetings is closed. The meeting will probably be the following monday, Oct 17. Be sure to look in the next issue to see for sure.



PVAS members may advertise in the Trading Post at no charge. Send ads to John Mangan, 9770 Oleander Ave, Vienna, VA 22181. Deadline for the next issue is Aug. 10.

APISTOGRAMMA HONGSLOI

By

Jeffrey Burke

I have bred Apistogramma Borelli before so when I had a chance to buy a breeding trio of Apistogramma at the auction I could not resist.

After researching for there named I found out the trio I bought were Apistogramma Hongsloi. The Hongsloi male was twice the size of the females. The Borelli I had spawned was in a 10 gallon tank, and they never harassed one an other. The trio of Hongsloi had a dedicated 30 gallon tank with 8 live plants and a large piece wood with java moss, but that did not stop them from continuously chasing each other. I had probably 6 batches of eggs but never saw any free swimming fry so I removed the submissive female. Once again eggs then wigglers and then nothing. the next batch of eggs I removed them and put the eggs in a 2 1/2 gallon tank with heater and a sponge filter from the 30 gallon tank. There was about 110 eggs of which 70 hatched the were easily raised on liquid fry food the baby brine shrimp and baby e powder. At two weeks old micro-worms were greedily devoured.

I lost 5 fry from hatch to 1 month old and another 3 when I moved them to a 5 gallon tank. After having low yields from my Borelli I changed the system for the fry tank. I ran two sponge filter cleaning one pad every weekend and the bottom of the bare tank was siphoned every night and the new water was from the original 30 gallon tank. From the free swimming period to the 3

month period I lost 11 fry with one deformed. Not to bad compared with the 55 lost with the Borelli.

At 3 1/2 months the fry were fighting with each other and eating a black worms.

From now on all my fry tanks will use 2 sponge filters and water for water changes will be obtained from a seasoned tank.

ed. note: sounds like a good idea. This method would benefit just about any kind of fry, not just apistos. Give it a try. J.M.

Don't Give Up On Aquarium Trade Yet

Upon reading his own obituary, Mark Twain once quipped, "Rumors of my death have been greatly exaggerated." The same might be said by the aquarium industry.

Some hobby groups are worrying that the soon-to-be released report by the Aquatic Nuisance Species task force will contain harmful recommendations.

Their worries may be unfounded, according to the Pet Industry Joint Advisory Council.

Aquarists should not overreact and launch campaigns that could heighten Congress' interest in this area, according to PIJAC, which has attended every meeting of the Congressional task force since its creation.

"Some hobby groups believe a full-blown opposition campaign is in order to protect the aquarium industry from harsh recommendations that could adversely affect both the hobby and industry," according to PIJAC in a recent "PetLetter."

PIJAC believes that a better strategy is to maintain a positive, cooperative relationship with the task force.

The ANS task force—which was supposed to investigate issues surrounding the intentional and unintentional introductions of nonnative aquatic species into U.S. waterways and to recommend different solutions to the problems—is expected to recommend that the aquarium industry and hobby be treated differently from other activities that involve importing and moving species from state to state, according to PIJAC.

PIJAC representatives will meet with key Congressional workers to discuss the ANS task force report and protect the interests of aquarium hobbyists and businesses.

Spawning Fancy Goldfish

The Easy Way

By Doug Sweet, MCAS

You just don't run into that many fish hobbyists who spawn goldfish. Sure there are some people who do spawn goldfish, but they are fewer in number than those who spawn cichlids, livebearers, killifish, and anabantoids. Why is this so? Probably because goldfish are a temperate water fish which require year round conditioning to spawn. In contrast, many tropical species can usually be conditioned to reproduce in a manner of a few days or weeks of good feeding, proper temperature, proper tank setup, and maybe a strategically timed water change or two. To understand why goldfish need year round conditioning, a little bit about their biology must be discussed.

Goldfish, before their widespread domestication, were native to northeastern Asia (China). The climate in this part of the world is very similar to the climate in eastern and central United States. Warm summers with markedly cold winters. This is the climate goldfish are adapted to and this is why they must be treated differently for reproduction to occur. Most temperate climate fish need a fluctuation in temperature, daylight hours, sometimes water quality and velocity, and finally other stimulating factors such as a change in feed to stimulate spawning. Goldfish are no different in this respect.

Let's get down to business and talk about what stimulates a goldfish to spawn. The most important factor which stimulates spawning is a long resting period in which the goldfish is in a state of semi-dormancy followed by an increase in temperature and daylight hours that comes with spring. These changing conditions prepares a goldfish physiologically to breed. Specifically, goldfish really need a winter resting period of a least several months duration in which they eat very little, if any at all, and they remain at a temperature somewhere in the 40 to 50 degree Fahrenheit range (or even cooler.) Then, as daylight hours increase, and water temperatures warm, goldfish begin to spawn. Normally this begins once the water reaches approximately 60 degrees Fahrenheit. Spawning really gets going when temperatures reach the high 60's or low 70's. This twenty degree temperature difference between winter and spring stimulate goldfish into spawning.

So if you want to spawn goldfish you had better be prepared to keep your fish in a very cool place over the winter. You don't want to keep them in your tropical fish room at 80 degrees. This simply will not do. A cool root cellar or possibly a closed off room or sun porch would do nicely. The goldfish I intend to breed next spring are spending the winter in the garage. Just be sure that the place you house your fish

does not get cold enough for the water to freeze solid. You don't even have to have ice formation on the top of their aquarium or pond, just as long as they get quite cool. Of course, if the fish are in a sizable pond, which hopefully will not freeze solid, then this is fine too. However, some of the more delicate double tail varieties cannot tolerate as cold of conditions as the singletail varieties.

Some other conditions also help in stimulating goldfish to spawn. In addition to the increasing daylight hours and associated temperature change, the presence of aquatic plants also turns goldfish on. Goldfish prefer to spawn in and on aquatic plants. In fact, commercial goldfish farmers stock their broodstock fish in a pond completely free of any aquatic plants, roots or other vegetation. The farmer waits until the pond warms up to spawning temperature. The fish hold off and do not spawn until large mats of spanish moss tied to frames are dropped in the pond. Almost as soon as these touch the water the fish begin to spawn all at once. In a very short time the spanish moss mats are completely egg laden and new mats must replace the used ones. The egg covered mats are then transferred to rearing ponds full of zooplankton for the soon to hatch fry.

The goldfish hobbyist can use plants or artificial substitutes too. Acrylic yarn spawning mops can be placed in the spawning tank at the opportune time for egg laying. However, from my experience, goldfish in an aquarium will not necessarily wait until they have plants to spawn on. They will actually spawn on the bare bottom of the tank if they have to.

Another factor which helps condition goldfish to spawn is proper food. If your goldfish are treated with a rich diet of high protein food as they come out of dormancy, you will be rewarded with good spawns. Generous feedings of live daphnia and earthworms have been recommended as spawn conditioners.

Not only are temperature fluctuations important over the extent of whole seasons, but during the spawning season the daily temperature fluctuations are important for regulating spawning. Typically, goldfish spawn as the morning sun warms shallow water to above the spawning temperature. Spawning occurs during this daily temperature fluctuation. However, if the fish are reluctant to spawn, then this fluctuation can be enhanced and used to help induce reluctant spawners.

Goldfish farmers take advantage of the temperature fluctuation that stimulates goldfish to spawn. Farmers drain their ponds partially and fill them back up with cold well water. Then as the pond warms back up from this chill, it will cause more vigorous spawning.

Hobbyists can also do the same thing. Drain their spawning tanks and refill them with cooler water. As the tanks warm the fish will hopefully be invigorated to spawn. I have heard of some goldfish hobbyists who use this method almost to the exclusion of a winter rest period. Instead of hibernating their goldfish at cool temperatures, they simply maintain them at low room temperature (mid 60 degrees or so). During this time the fish are fed very little. What little food they do get is mostly

carbohydrates. Then, when spawning time approaches, the fish are fed high protein food such as worms, daphnia, and egg in quantity. Finally, when spawning is desired, most of the water is drained from the tanks and then refilled with cold dechlorinated tap water (at least 10 degrees cooler than the tank water.) This should induce spawning. If not the process is repeated.

Wait a minute! If this sounds too complicated and time consuming for you. If you want to spawn goldfish but are unwilling to spend the time and space to winter hibernate them. There is an easier way (actually there are two but I will discuss only the one that is more practical for the typical hobbyist.) All you need to do is go to your local goldfish importer (that fish shop that specializes in fancy goldfish) and ask them to order you some goldfish early in spring.

If you purchase fancy goldfish sometime in late March through April there is a good chance that they were harvested from a pond in which the fish have naturally winter rested. Then all you need to do is take them home, acclimate them to a tank (at room temperature) and let the action begin. Of course, you may need to carefully treat the new arrivals for any parasitic diseases which they may have (and pond reared fish are frequently loaded with them.) Once you get them over the stresses of transport and any disease treatments, and they have settled into their new home, then you may be awarded with some spawns.

Anything that you can do to make the goldfish more likely to spawn you should

do. Supply them with spawning mops. Feed them well on live or frozen foods, and overall give them much attention. Attention is important because it is very easy to miss a spawn of goldfish eggs. Although goldfish lay an enormous number of eggs, they also can be avid egg eaters, too. So be vigilant and check that tank for eggs. Especially in the late morning when most spawning activity is likely to be concluded.

There are several things you must remember if you want to try to spawn goldfish in this manner. These are:

1. Purchase only mature specimens. Goldfish must be more than one year old to spawn. So do not purchase those small, couple dollar size fancy goldfish. You must get sexually mature fish, so splurge and purchase the larger size (2 to 3 inch body size or larger) fish. It will cost more, but if you want to spawn them you have to spend the money for mature fish.
2. Be sure to try and get at least one pair of the variety you wish to breed. Goldfish can be sexed in several ways. Males have breeding tubercles (white pimple like protrusions) on their gill covers and pectoral fins. Males may also be seen initiating a chase after a specific female. Females tend to be more robust in the abdomen, especially in the spring, and are usually being pursued rather than doing the chasing.
3. Purchase only newly imported fish or fish which are known to have come from a pond. If the goldfish have

been held for any extended period at a fish wholesaler or at the dealer, they may have been spawned out already or have been stressed enough to stop them from spawning. Sometimes you may not have a choice in this matter. The dealer may not be able to tell you if the fish were held indoors or not. If this is the case, you may just have to take your chances and purchase fish sometime in early spring in hopes they will be ready to spawn.

4. Once you purchase the fish and get them acclimated, set them up for spawning as soon as possible. Spawning may occur very rapidly, frequently within a few days of acclimation at the warmer temperatures. If you wait to set them up, you may miss the spawn. Females may even begin to drop eggs without the presence of the male. So it is important you get both sexes right away. If you separate the sexes before spawning, keep a close eye on the females. If they begin dropping eggs, get them in with a male as soon as possible.

5. Be ready to remove the adult goldfish from the spawning tank as soon as they are done spawning as they may eat their own eggs.

6. Be prepared to devote much space to raising goldfish if you intend on spawning them. Goldfish fry take up much more room than tropicals. Combine this with the fact that even moderate sized goldfish spawns may

number in the thousands, you can quickly run out of room. Hence, you must be ready to cull out many even at a very early stage.

This method for spawning goldfish can be very successful. I have had American shubunkins, bubble-eyes and butterfly tail telescopes all spawn successfully using this method. So if you want to do something a little different than breeding those killifish or cichlids, try some fancy goldfish next spring. If you purchase adult fish in early spring, you may find spawning goldfish almost as easy as spawning those cichlids, killifish, or even some of those livebearers.

(Incidentally, the other easy method for spawning goldfish is by using hormone injections. Maybe I can tell you about that in another article.)

Reprinted from Tropiquarium, the publication of the Motor City Aquarium Society, February 1991.



Lamprologus Vittatus

By

Jeffrey A Burke

The success of breeding fish has almost as much to do with the personalities of the fish as it does with the preparation, diet, and the set up of the tank all combined. If the dominant male kills all the other fish your out of luck, if he picks a female and always quarrels with her, no fry and if either of them continuously eat the eggs or fry it is the worst because you are so close without success.

I had a pair of Lamprologus Brichardi which for one and a half years I never got anything past wigglers. My similar Lamprologus Vittatus are ideal parents, in a ten gallon tank with a rock with a hole in the middle of it they have raised three generations of fry.

The middle of the rock is were the eggs are laid. The female will keep the male from entering the hole when she has eggs or wigglers but without fin damage to him. As the fry get older and start moving outside the hole the male is allowed back into the hole area.

The most interesting parental care of these fish is not that of the parents but that of the older fry which the parents allow inside there territory to help care for the young. After the fry are two to three weeks old the older fry seem to take more care of there younger brother and sister than the parents. The parents never lead the fry around, very rarely pick them up and spit into

the middle of the swarming fry. The parents are more laid back there attitude is if you go to far away from the parental care territory you will live with the results or should I say die with them.



POTOMAC VALLEY AQUARIUM SOCIETY

Post Office Box 6219 Shirlington Station, Arlington, Virginia 22206

Application for Membership

Date: _____ 199_

Name: _____

Street: _____ Apartment: _____

City: _____ State: _____ ZIP: _____

Telephone (Home) _____ (Work) _____

Occupation: _____

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
Corresponding:	\$ 9/yr
Junior (under 18):	\$ 5/yr

Please send application and check for dues to the address shown above.

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PO Box 664
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Meetings are held at the John C. Wood Facility, 3730 Old Lee Hwy.
(rte 237) Fairfax City, VA. Room 7 (in the rear of the building).
Doors open at 7:30, meetings start at 8:00. ALL ARE WELCOME.

