



Follow-up on: Notes on a Supplement to C.H. Peters’ “Life and Love in the Aquarium”

By Lee Finley

In the May 2024 MOAPH release, issue number 21 (December 1987) of the Collectors of Aquarium Literature [CAL] was presented. This magazine, edited by Dave Hopp and Paul Harvey, is an invaluable resource on its stated topic and MOAPH is to be applauded for presenting, monthly, the entire run of this publication. There are numerous issues of CAL yet to come on this site so stay tuned.

In issue 21 I had an article as noted in the in quotes title above and am taking this opportunity to make some brief comments regarding it. I thank MOAPH for providing me with the space to do this.

You will note in the title of the original presentation of the article that the incorrect word “Live” was used instead of the word “Love”. I had prepared the article as copy ready and that was my bad. So much for my good proof reading. At least I got it correct on the first line of the article.

What follows is a copy of the original article as it appeared in CAL followed by scans of the noted supplement which was not included therein. I am including the article to save any interested party from having to jump back and forth to read a completed piece. In the published issue a copy of the supplement was attached below the article. The absence of it in the scanned copy could be attributed to a couple of reasons: 1. The article was attached using some of the (now I guess) old-fashioned triangular sticky back holders that were used to put photos in what is now known as an “old fashioned” paper-based album. Depending on your age you may, or may not, be familiar with these. In any case, the sticky part may fail, and the attached piece is then on its own; and 2. The supplement may have been removed and inserted into a copy of the book as was its intended purpose.

With the above in place I now offer a completed version of the article and supplement.

NOTES ON A SUPPLEMENT TO C. H. PETERS'
"LIFE AND LOVE IN THE AQUARIUM"

By Lee Finley

These notes are in regards to the book "Life and Love in the Aquarium" by C. H. Peters which was published by the Empire Tropical Fish Import Company in 1934. Actually these notes do not revolve around the book directly but to a supplement to it. To date no one with whom I've talked has shown awareness of such a supplement. So, I felt that a mention of it was deserving. I came across the supplement while browsing through the library of a friend. He had a particularly nice copy of Peters and as I looked through it I ran across the supplement. I asked about it and my friend stated that it was in the book when he purchased it at a used book shop. Although it is titled "Supplement to Life and Love in the Aquarium", it is interesting that Peters name (nor any other for that matter) does not appear anywhere on it. It should also be noted that no date or publisher is to be found on the supplement. At this stage I can only theorize that it was probably printed by the Empire Tropical Fish Import Company at a later date. Method of distribution is also unknown - probably inserted into remaining copies of the book (?) From known first import dates of some of the fishes covered I would estimate that the earliest date that the supplement could have been published was 1937. It is, to me, interesting that in a number of ways that the writing in the supplement differs from that in the book. (e.g. In the book Peters constantly refers to "we" and "our", whereas in the supplement the term "the writer" is used.) Was there another "author" involved? So for now this little supplement is somewhat of a mystery. Hopefully someone reading this might have some information that would shed a little more light on this interesting piece.

I have prepared copies of the supplement to accompany this article. The copies are of original size and are also folded in the same manner as the original. Hopefully this will add (at least in facsimile) an interesting little piece to your library.

Supplement

to

LIFE & LOVE

in the

AQUARIUM

TANICHTYS ALBONUBES — LIN

(White Cloud Mountain Fish)

This small fish with its exquisite array of delicate coloring has an exceedingly interesting history as told by Dr. O. R. Eastman. According to the party that brought them back from China, they were discovered in 1932 by Tan, a Chinese boy scout, their recorded distribution being White Cloud Mountain near Canton;—hence the name *Tanichtys Albonubes* Lin, named by Lin, (Lin Shu-Yen) head of the Fisheries Experiment Station at Canton.

Tanichtys Albonubes is similar to the Spotted Danio in size and shape and a preserved specimen sent to this country was classified as a *Brachydanio* Species. The blue-green line going through the eye and along the body is exactly like the Neon's while the fish is young. However the color diminishes with maturity to be held in reserve for courtship only.

Sex determination is quite easy with fully mature fish. The males have more colorful and larger fins, while the females seem to be always full of eggs the year round.

A moderate sized breeding tank of about five to ten gallons should be prepared filled almost to the top with old water, as the fish is slightly sensitive to water changes. A mat of plants, weighed down with a few stones, preferably *Myriophyllum Affinis*, should be spread across the bottom. Because the fish is very agile, the writer suggests two males for each female. While *Tanichtys* have been successfully bred at temperatures ranging from 68 degrees F. to 90 degrees F. about 80 degrees F. seems to be the most suitable together with a pH of 7.2 to 7.4.

Now for the spawning act itself. An exciting chase commences during which the colorings of the fishes are glorious. Then, like the Neons, a pair will dash in and out of the plantings, the male quickly embracing the female and parting. This act may continue an entire day if the female is well-developed. The non-adhesive eggs drop in between the plants where they hatch after about 48 hours, (at 80 degrees F.) after which they begin to appear on the sides of the aquarium.

After three days the young have absorbed their yolk sacs and are free-swimming. Feeding is exactly as with the Neon Tetras. The babies grow at an amazing rate and after three weeks reach a size of one quarter inch. About this time they also attain their youthful bright coloring which gives them the appearance of Neon Tetras. The parents usually do not have to be removed as they pay no attention either to the eggs or the young fry.

HYPHESSOBRYCON INNESI — MYERS **(Neon Tetra)**

HypheSSobrycon Innesi or Neon Tetra is undoubtedly one of the most beautiful, peaceful, active and outstanding of all exotic fishes. The exact locality where the Frenchman, Rabaut first discovered the fish was of course kept a dark secret. It is said to have been found beyond Iquipue, in the primeval forest of the Peruvian Amazon and other inaccessible places in Brazil. The exact locality is not known.

It is only natural that the desire to propagate them would arise. Following therefore are tested suggestions on their breeding and care, arrived at after careful observation by the author.

From descriptions of jungle pools heavily shaded by tropical trees it is of course obvious that the pH of the water would be acid. The pH used by most breeders and Ichthyologists verifies this and is usually kept at 6.6 to 6.8. German aquarists, we are told, use oak leaves as a method of acidifying, but the best and simplest method is to add acid sodium biphosphate which is included in regular pH kits.

Sex determination is very difficult, the only sure way to identify the sexes is by shape, the female being decidedly rounder and broader, and fuller when ripe.

Into an aquarium (five gallon size or larger) filled with six or seven inches of crystal clear water (as will be mentioned later the young keep close to the bottom in their early stages of life. If they do not have strength enough to reach the surface, they drown; thus the low water level) which should stand for a few days and observed for Hydra and Snails, one or more pairs may be placed.

The tank should be heavily planted in one corner with *Cryptocoryne Griffithi* and *Myriophyllum Affinis*, the fine branches of which hold the eggs and therefore are of a great advantage, as eggs dropping to the bottom, often, though not necessarily, fungus. The *Myriophyllum* by the way is best held down by weighing it with a few stones. Covering the aquarium with dark-green cellophane paper will help re-create the conditions of their natural habitat. Slight artificial aeration is desirable as it undoubtedly stimulates the fish to greater activity.

The spawning act itself, which usually takes place in the early morning, is carried on very much in *Brachydanio* fashion. For a day previous a wild driving will take place. As the chase dies down the male circles the female and the love play begins,—This lasts for about two or three minutes. Suddenly they dash into the darkest and densest corner, make a partial turn sideways, contact their bodies for an instant, roll over and part,—then re-start again. This ritual will last from an hour to four hours, depending upon the amount of roe the female carries. When the spawning is completed, both lose interest in each other and rest.

Luckily, unlike *Brachydanios*, Neons do not immediately eat the fruit of their labors, thus giving ample time to separate them from their eggs. The eggs are milky white at first when expelled, but become glass-clear within a few minutes. Like all eggs of the characin species which require from 24 to 36 hours for hatching, these are no exception. With a temperature of 75 degrees F. the eggs hatch in about 24 hours.

The Embryos drop to the bottom and lay there for about two days. Slight vibrations will cause them to jump about awkwardly. Contrary to other Tetras, the Neon babies do not cling to the sides of the aquarium at first. The young start to swim within five to ten days. They should be fed with plenty of Infusoria. Later such foods as Brine Shrimp, *Daphnia*, and small Cyclops should be used. The young grow rapidly until about half-grown (when they already have good color) from then on size is attained at a more normal rate.

HYPHESSOBRYCON GRACILIS

(Glow Light Tetra)

Glow Light Tetras breed in quite the same way as all Tetras do. Their spawning begins with the quaint dancing and flirting around each other. During this love-play the upper and lower edges of the caudal, front edges of the ventrals and anal, and the tip of the dorsal, which usually are of a whitish color become a delicate metallic blue.

Again the turning sideways, contacting their bodies and expelling and fertilizing the eggs, is exactly as mentioned in breeding the Neon Tetra. The matings are repeated at intervals of several minutes until from 25 to 100 eggs have been produced. As to spawning plants, large, bushy *Myriophyllum Affinis*, *Cabomba*, etc., is again the best for catching the non-adhesive eggs. Though they are not inclined to hunt their eggs it is well to remove the parents immediately after spawning.

After hatching in about 48 hours, the young absorb the contents of their egg sac during the next few days, which provides nourishment during the helpless period. After this they require microscopic food. They thrive on living Infusoria, followed by newly-hatched Brine Shrimp or sifted *Daphnia*. A fine Infusoria of yellow hard-boiled egg also helps.

Best pH 7.2. Best water temperature 78 to 80 degrees.

ANOPHTICHTYS JORDANI (Blind Cave Fish)

This lively and very hardy subterranean fish has an extraordinary ability to sense the presence of any obstacle, due no doubt to some compensating sense which is sensitive to vibrations and water pressure. While this is not yet substantiated by scientific evidence, this observation is quite in line with what careful reasoning would lead us to expect. At any rate this sensitiveness seems to tell them how to avoid bumping into the sides of the aquarium or other objects.

Because closely-related characins need eyesight to accomplish their spawning, these blind fish must find some other way. Their matings therefore are quite unusual, but very simple. Two males seek out a corner, usually near a filter where there is a slight water current. By butting and banging their bodies together they produce the excitement necessary to the discharge of their sperm into the water. The female hovers close by and as the sperm flows past her, she becomes greatly agitated and under heavy trembling and violent straining, drops several batches of eggs which fall to the bottom unattended.

Immediately after these spawning activities are completed, all three fish should be removed to prevent them from eating their spawn. The eggs hatch in about three days at a temperature of 75 degrees F. The pH of the water should be near neutral for best results; although successful matings have been recorded with both acid and alkaline water.

The young have perfect eyes, but do not see at all. As the babies grow larger, the eyes dim until they become mere rudimentary balls. Infusoria must be supplied to the fry for about two weeks after which they will thrive on prepared foods, but a variety should be offered.

GYMNOCORYMBUS TERNETZI

(Black Tetra)

A comparative newcomer to the aquarium, *Gymnocorymbus Ternetzi* with its simple and brilliant color pattern is a fish which spawns in the typical Tetra fashion. It is not timid, is a splendid show fish and will take any food that is offered, apparently enjoying all with equal relish.

Possible indications of difference in sex are hard to find except in large adult fish. At mating time the larger abdomen of the female and the enthusiastic driving of the male will give indications of their sex and desire to spawn.

The writer, in breeding these fish used a pH of 7.4 and a water temperature of 80 degrees F. which met with very favorable results. In this case a ten gallon spawning tank was prepared, filled one-half full with old water and thickly stocked with finely foliaged plants. (*Ambulia*, *Myriophyllum Affinis*, etc.)

After lively driving by the male, intermingled by rapid irregular darts at the female, the fish contacted their bodies immediately above the mat of plants. Accompanied by a little trembling, the female ejected her adhesive eggs (which were immediately fertilized by the male, whose sperm is emitted in close proximity to them) on the feathery plants where they were easily seen. The eggs were crystal clear at this time, but gradually turned a milky white just before hatching. The spawning lasted about two hours after which time both parents were exhausted and lay quietly in different corners.

The young hatched in about 48 hours and as in most egg-layers, were helpless and adhered to the sides of the aquarium. They took no food at this time, being nourished by the contents of the yolk sac. Shortly later however, microscopic food had to be supplied until the babies were sufficiently developed to take some Brine Shrimp and other prepared foods.

BARBUS SUMATRANUS — AHL

This beautiful barb must be conditioned before breeding is attempted. This is done by separating the sexes and feeding each with

plenty of nourishing food, preferably Daphnia, Glass Larvae, etc. The females are much deeper and fuller than the males but are often equally as colorful.

Breeding arrangements are quite simple. The writer has found a ten gallon aquarium ample for propagation, one side of which was heavily planted with Cabomba, Anacharis, and Myriophyllum Affinis. Water should be slightly acid, pH 6.8 temperature 80 degrees F.

After a fairly long courtship that consists of the male driving the female until she appears exhausted, the pair swim over to the thicket of plants, where the female expels one or two eggs at a time, quivering while she does so. This routine continues for about two hours until several hundred eggs have been laid.

At the completion of the spawning, unfortunately, the natural instincts of the parents become confused and unless they or the spawn are immediately removed, they will turn and devour it.

The young hatch in about 36 hours, are virtually indistinguishable at first and look like small glass splinters hanging on the sides of the aquarium.

Feeding at birth is exactly as other species mentioned here.

