

ROMFORD & BEACONTREE AQUARISTS' SOCIETY

NEWS-LETTER

JUNE QUARTER 1964.

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CONTENTS.

Basic Principles of Breeding.	Page 1.
Do You Know?	" 2.
How the Fish Egg Bites.	" 4.
Breeding the Piggy Catfish.	" 5.
Conditioning Goldfish for Spawning.	" 6.
Gold Fish are Easy.	" 7.
Breeding the Black Line Tetra.	" 9.
News and Views.	" 11.
Problems.	" 12.
Fish Diseases.	" 13.

BASIC PRINCIPALS OF BREEDING.

Page 1.

Natural Conditions. When breeding any type of tropical fish we must first realize that in nature fish spawn only once or at the most twice a year, and that these spawnings are months apart; indeed some fish spawn only once in their lifetime. We must also realize that the way in which we keep and feed them is entirely artificial. The water is different, we cannot hope to reproduce this anything like that in the fish's natural habitat. Companions in the tank are different - in fact they may even come from different continents. For example, most of the Barbs or from Asia, whereas the Characin, almost without exception come from South America.

As you can see from this, in Nature, the sediment at the bottom of the lake or river, the leaves from overhanging trees and plants, the droppings from the fish and other local animals, and many other factors make it impossible to give fish their natural surroundings.

Nature works on a one for one basis, that is to say one adult fish produces one adult fish in the whole of its lifetime, whereas we as aquarists hope and try to get hundreds for one. As we cannot give fish their ideal natural surroundings the best thing we can do is to give them an artificial surrounding.

This is a case of experiment and experience with one species of fish, remembering that many fish, especially smaller Characins grow larger and are more prolific in captivity than in their natural surroundings. I think that in the main the Aquarist has succeeded in this aim and that our artificial methods are better on the whole than Nature.

A. Smith.

DO YOU KNOW?

(Answers on Page 12.)

WHICH FISH:- COMES FROM THE AMAZON RIVER IN PERU?

- Is a member of the Tetra family?
Generally does not exceed 1 1/2" in length?
1. Principal colour is blue/green?
Is considered one of the most difficult to breed?
Is one of the most popular?

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COMES FROM SINGAPORE?

- Generally does not exceed 2" in length?
2. Is a member of the Danio family?
Principal colours are dark blue & silver?
Is considered a beginners fish?

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COMES FROM THE CONGO RIVER?

- Generally does not exceed 3 1/2" in length?
Has principal colours of green, blue & silver?
3. Is considered rare and expensive?
Is a member of the Tetra family?
Can particularly be sexed by the Caudal Fin?

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DO YOU KNOW? (Contd.)

WHICH FISH:- CAN BE FOUND IN INDIA AND CEYLON?

- Generally does not exceed 2" in length?
Is a member of the Mollid family?
4. Has colours which change rapidly?
Has habits similar to Dwarf Cichlids?
Will eat only live food?

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COMES FROM CEYLON?

- Generally does not exceed 2 1/2" in length?
5. Is a popular species of Barb?
Has colours of black, silver and red?
(which provide a clue to identity).

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COMES FROM SOUTH AMERICA?

- Generally does not exceed 3" in length?
6. Has principal colours of black and silver?
Prefers lower temperature than most?
Lays eggs in depression in gravel or sand?

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Bernard Lee.

HOW THE FISH GOT BITES.

One day about seven years ago, my son, who at the time was twelve years old, acquired a small tank and about a dozen Guppies. Well they were the centre of attraction for a few weeks as new toys often are, but after a while they were put into a back room and fed when thought of.

One day I went into the back room for something when I noticed the tank; I thought, "I will have to feed these perishing fish."

I put in some food and as I did my finger went into the water - "That's cold!" I thought. So I took the temperature. It was below 50°. Panic stations! Nothing is allowed to die in our house if possible, so a hurry mission started.

We poured warm water into the tank, but mind you we knew nothing of Whitespot or any other killers, but nursing as it was we had no Whitespot or any other disease. We managed to save about seven Guppies, later an interest grew again as some young were born, so our fishkeeping hobby started.

A. E. REID.

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REDDISH THE TINY CATFISH.
(Corydoras Hastatus)

This Catfish can perhaps be considered one of the less common in the Corydoras family and it came as a pleasant surprise when I came across several of these fish in a South London Aquarist's shop.

They come from South America and are quite distinct from other members of the family both by their size and coloring. They rarely exceed 1 1/2" in length and are a uniform grey over the upper part of the body with a black line running horizontally from the head to the tail the lower portion of the body being a uniform silver.

I spent a not inconsiderable sum of money for two of them which measured little more than 1" in length. Upon arrival home they were placed in a 24"x12"x12" aquarium with no other occupants except some gravel, an Amazon Sword Plant and several sprigs of Bacopa. The temperature of the water which was crystal clear varied between 70° F. and 80° F. They were fed mainly with Tetra and occasional dried food. After several months, distinct sexual differences were visible, the female being noticeably plump and larger overall and possessing a slightly rounded dorsal fin when compared with the male.

It was about this time that on a particularly sunny day with strong sunlight entering the tank that both fish were observed to be unusually active. The female was swimming among the plants being closely followed by the male, every few moments he would press himself against her. It was on the following day that an egg was noticed on the glass of the aquarium. The part of the tank receiving most of the light was blacked out at this stage. Two days later neither the egg or any young was visible. The following day nine young which were free-swimming were seen. The water level was lowered to 6" but the parents were allowed to remain. The next day the number of young increased to sixteen. They measured approximately 3/8" in length, were a pale grey in colour with three dark spots on the side. A week later approximately forty young were counted being very active

BREEDING THE FIGHTY CATFISH. (Contd).

From the free-swimming stage the young were fed exclusively on liquid fry and after five weeks were given chopped Tubifex. Growth was rapid and after a further three weeks measured over 5" in length.

B. PTE.

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CONDITIONING GOLDFISH FOR SPAWNING.

Preparing Goldfish for spawning should start soon after they have finished spawning the previous year. They should be fed with as much live food as possible; this should consist of Daphnia, Earth Worms, and insect larvae.

The fish should be cleaned of parasites such as Gill and Skin Flukes because if these are dislodged from the parent fish during spawning they could infect the newly hatched Alevins which would result in a total loss. To clean the parent fish you make up a stock solution of Potassium Permanganate.

To prepare this take a quarter teaspoon (0.9 grams) of powdered Permanganate which can be obtained from a Chemist's Shop, next get a graduated bottle, fill this with warm water up to the eleven tablespoon mark, add the .9 grams of Permanganate. Shake well to dissolve the chemical, then store it in an air tight container but not a metal container. This is your stock solution.

Clean an aquarium size 24x12x12. Fill it with water (i.e. 10 gallons), add one tablespoon of your stock solution, mix then thoroughly with aeration if possible, place your fish in this disinfectant bath and leave them in it for three hours.

This treatment should be repeated again three days later. After this the fish should be clear of flukes. Make sure all your aquariums, nets and airstones are thoroughly clean, thereby preventing reinfection.

GOLD FISH ARE EASY.

by Jane Denton of the North Eastern
Indiana Aquarium Society.

Early one spring Saturday morning, I decided to clean out my portable fibre-glass pool that I keep in the basement during the cold winter months. After catching my eight assorted goldfish, I placed them in a bare 10 gallon tank. This done, I started emptying the pool and cleaning the inside.

About half an hour later, I noticed three of the goldfish spawning. A golden fantail female was being vigorously pursued by two male shubunkins. They spawned much like the cobra fish, except that goldfish usually lay their eggs, which are adhesive, on ferny type plants. Since I didn't have any suitable plants at the time, I threw a spawning mop we use for parrotfish, into the tank and it worked just fine. Goldfish fry require a lot of growing room, therefore, I couldn't keep very many eggs, so after a short time I removed the mop.

I put the mop in a one gallon all glass tank and added ten drops of methylene blue. It took 4 days for the eggs to hatch. During these 4 days the water temperature was 66° and the tank was semi-dark. When eggs hatched, the babies looked like little splinters. They would dart about and then stick to the sides of the tank to rest. Since it was impossible to net them, I submerged their entire tank in a ten gallon.

Shortly after I put the babies in the larger tank, I discovered some hydras setting up house keeping. It would have been impossible to remove the babies again and I couldn't think of any remedial that wouldn't kill the goldfish fry as well as the hydras. The hydra has a notorious reputation for devouring fish fry. All I could do was hope the babies would grow fast enough in a few days that the hydras would be unable to catch them.

In about 3 days, most of the spawn was free swimming. The first two days they were fed on Pasterorfy.

GOLD FISH AND MATS. (Contd.)

and some infusoria already present in the tank. When the Postorfry was gone I didn't have time to go buy some more. Suddenly I remembered a jar of Garber's Strained egg yolks, that had been sitting in the refrigerator for several months. In order to make the egg yolks edible for small fry, a small portion is sized with about a tablespoon of water to make a liquid.

My baby goldfish really went for it in a great big way. By the time they were a week old, and the size of new born puppies, they were tackling dry food, protein dry cereal, brine shrimp, Aphasia and anything they could swallow. The hydra population was rapidly declining as the fry grew bigger.

By the time the babies were about 3 weeks old, fantails could be noticed developing on some of the youngsters. From 5 to one-third of the young will develop fantails, the rest will have short single tails like the males. As yet the young show no color. Some are born with color, but it may take from six months to one year before color appears.

The key to spawning goldfish is conditioning. My adults are fed pellet type dog meal, white worms, frozen shrimp, Aphasia and liver and spinach paste foods. It is not necessary to feed them every day. Two or three times a week is sufficient. Goldfish like lots of swimming room and a temperature range of 60 to 75.

Goldfish are easy to spawn. Their large size fry present no special feeding problem and they grow rapidly. It is also amazing to see the different color types, body structures and finnage that are possible in the same spawn. Even if the parents are identical, they may come up with some entirely different looking fry.

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DISCUSSING THE BLACK LINE TETRA.
(Hyphocerycon Scholzei)

This is a much maligned little fish - it has an undeserved reputation for fin nipping, but in the four years I have kept them I have never noticed this. They are lively and never tire of showing off. Although not speedy they are attractive fish; the body is silvery, the head olive, the eye jet black. A striking black line runs the length of the sides ending in a large black spot at the centre of the tail-fin. The first rays of the ventral and anal fins are white. It is extremely hardy and so easy to breed that I would strongly recommend it as a first egg-layer to any beginner (in fact according to the P.O.S.S. it is easier to breed than the Guppy.)

To breed them you should first get six young fish (if possible from at least three different dealers) about 3/8" to 1" long. This is not expensive as they are only 1/64 to 1/96 each. Feed them until they are about 1 1/2" to 2" in length. They will eat anything, but as with most tetras, they like starchy foods best. You should be able to sex them quite easily. The females will be deeper than the males and should show a darkish area in the centre of the dorsal. This is the time to separate the sexes if you have not already done so. Feed them well on worms etc. for about ten to fourteen days. If you are lucky, and have at least two good females, prepare two tanks as follows:- In one tank (I find an 18"x10"x10" best for this fish as it is larger and they seem to lose each other), place a layer of well washed marbles or pebbles. On this put a clamp of boiled coconut or nylon fibres. I never use plants as it is almost impossible to clear them of parasites. Then top up with tap water until it is about 6" - 8" deep. The other tank can be much smaller or even a large jar. Put sufficient water in this to hold one fish comfortably. Leave for twenty-four hours, then bring up to 80 F. and place the male in the large tank at the same time putting a bright light over the tank. In a few hours the male will have settled down and will be excitedly exploring his new quarters. This is the time to put the female in. If the male has

BREEDING THE BLACK LINE TETRA. (Contd).

settled down properly, spawning should start almost immediately or at least within the hour. If this does not happen the male has not settled in properly, but they should spawn within twentyfour hours.

If the spawning is observed (spawning is in typical Characin fashion) the second female should be placed in the small tank or jar. When the first female appears to be exhausted, and the male is hitting and biting at her, remove her and place the second female in the breeding tank. The male will immediately begin to chase her and spawn with her. When they both stop spawning and begin to rock around on the stones and breeding material it is time to remove them. They will not search for the eggs but will eat the exposed ones. The eggs, the size of a pin head, are very adhesive and will hatch in twentyfour hours or less. The fry do not hang on the glass or filter like most other fry but bob up and down between the bottom and the surface of the water like tiny yo-yo's. Feeding should start on the second day with Infusoria (Liquifry). Growth is rapid and brine shrimp can be given on the sixth or seventh day, this should be alternated with Microworm on the ninth or tenth day as like most tetras they are not over fond of salt and a purely saline diet will kill them in a few weeks. Continue giving Infusoria while there are still fish small enough to take it. In three to four weeks they will be large enough to take fine dried food, Grindle Worm etc. If a large amount of dried food is given these fishes develop the symptoms of Swim-bladder trouble but I believe this must be some form of indigestion as it passes off in a few hours.

At this time sorting should begin on the larger fry may be cannibalistic towards their smaller brethren. Although the small ones should soon catch up if separated. By this time you should have three to four hundred baby fish which will be ready to breed in about six months. The parents will be ready to breed again in about 10 to 14 days. The best trio I had produced just over two

BREEDING THE BLACK LINE TETRA. (Contd).

thousand youngsters in sixteen months. The biggest single spawning was three hundred and sixty - but a word of warning - after about the third generation I have found that the spawnings got smaller in numbers with a large percentage of runs and eventually seem to become sterile. I found that if I bought new fish in from as far away as I could, while I could not get brother and sister to spawn together, they would with the new ones successfully. There is a scientific explanation for this but I don't think we need to go into that here. The date on the water I used is P.M. 7^h - 7^h. 160 to 200 P.P.M.

NEWS AND VIEWS.

Please try to get your Entry Forms in early for the Devonham Town Show. They should go to Mr. G. Barkley or Mrs. K. South. I hear Mr. Barkley has got to go into hospital shortly to have an operation on his eye, best of luck Charlie.

More articles are needed for our next magazine so get out your pens. You do not have to be an expert to write an article. You do not know what to write about? What about the time you had White-spot and cured it, or when you went Daphnia-hunting and fell in etc. etc.

If you have any queries on any of the articles just put pen to paper.

If you have any fish, plants or equipment for sale, why not advertise in our Exchange and Mart Column?

PROBLEMS.

I would like to write on some of the problems the newcomers to our hobby are liable to face. I think the trouble that occurs most is the water beginning to smell and the sand or gravel turning black. This is caused by overfeeding. A good formula for feeding is to give the fish a reasonably small amount and if the fish eat this within a minute or so, to give them a further small portion.

Another problem faced by many aquarists is that of algae, this is caused by too much light. The problem here is that if you cut off the light the algae will all die at once and foul the water. There are two answers to this problem. (1) To cut off the light gradually until there is just enough to maintain a healthy plant growth. (2) To introduce fish that thrive on algae; some of these are the Mollies, all of the Sucking Catfish and the freshwater Sharks which are of the Ictalus family.

A problem which we all face when stocking up our first tank is what fish to buy and what fish will live together. There are many fish that will live together in harmony and I have listed a few of the most colourful below.

Neon Tetra,	Guppy,	Mollies,
All of the Platies,	Zebras,	Angel Fish,
Rosey Barbs,	Higger Barbs,	Tiger Barbs,
Harlequin and many more.		

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ANSWERS TO DO YOU KNOW?

1. Neon Tetra.
2. Zebra Danio.
3. Congo Tetra (Phenacogrammus Interruptus)
4. India Danio.
5. Ruby or Higger Barb.
6. Banded Sunfish.

FISH DISEASES.

EMUTATION.

Symptoms:- Loss of appetite and slight abdominal swelling.
Treatment:- Soak dried food in castor oil. If the fish will not eat this they should be fed on daphnia or oscudate larvae. Do not use white worms as they are one of the chief causes of constipation.

WIM BLADDER DISEASE.

Symptoms:- The fish has difficulty in swimming and it falls head over heels.
Treatment:- There is no known cure for this disease, but some people recommend lowering the level of the water and raising the temperature.

FIN ROT.

Symptoms:- The fish has a whitish appearance over the affected area.
Treatment:- Bathe the fish in a strong salt solution, i.e. 4 Tablespoons of salt per gallon of water.

WHITE SPOT.

Symptoms:- White spots of pinhead size on the body of the fish. Fish gets sluggish, closes its fins and gradually dies.
Treatment:- Bathe fish in a brine bath. Alternatively, Methylene Blue. (There are products on the market that do the job admirably, but some aquarists say they make the fish sterile.)

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COMING EVENTS

2. 7.64. Setting up Dagenham Town Show.
 (All help gratefully received)
16. 7.64. Inquest on Town Show
6. 8.64)
20. 8.64) Holiday period and nothing specially
 booked for these two evenings.
 Any suggestions?
3. 9.64 Three-handed quiz and table show
 with Ilford and East London Clubs
17. 9.64 Bob Morgan Trophy
- 1.10.64 Annual General Meeting.

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