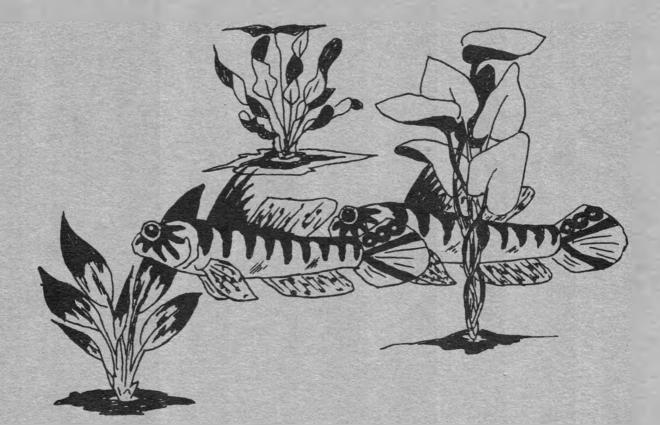
SEPTEMBER, '7;





# DARTER



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THE DARTER

#### PUBLICATION OF

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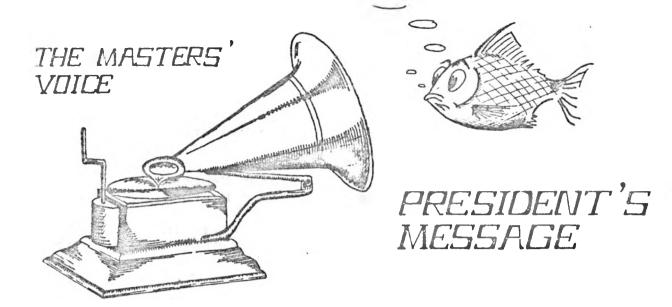
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EXCHANGE PUBLICATIONS: The Darter will exchange with other club's publications. Please send exchange publications to;

THE DARTER - M.A.S.I. 9407 Tilles Drive Brentwood, Missouri 63144

Failure to receive three consecutive issues of a club's publication will be considered as a termination of our exchange with that club, unless advised to the contrary.

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Well, the summer is almost over and it is time that most of our members start to re-involve themselves with fish. I am hoping that more of our members will be involved with M.A.S.I.

M.A.S.I. will be the host of the 1978 National Convention of the American Cichlid Association. The Executive Council has appointed Richard Crabtree as Chairperson of the convention, and Ralph Wilhelm and Mike Heinemeier as Co-Vice Chairpersons, to handle this event. With the approval of the membership, these men will have the responsibility of handling the convention. I am sure that these fellows will be calling on you for help.

I hope you are all getting ready for M.A.S.I.'s Super Bowl. I would like to see each member bring fish for judging.

I am looking forward to seeing all of you at the September meeting.

Sincerely yours, Dave Masters, President

#### SEPTEMBER MEETING NOTICE

Time and Date:	8:15 P.M. Wednesday, September 14th
Place	Prudential Savings & Loan Community Room, 6th Floor, 8020 Forsyth, Clayton, Missouri. Park in garage - lower level.
Bowl Show:	Swordtails - low fins only, excluding Hi-fin or Lyretail
	Mollies - all varieties
	Open
Program:	HOW TO JUDGE A FISH: Larry Arnold slide program. Learn what the judges look for at a fish show, and how to make your fish display better. Pick up some helpful hints for Super Bowl!

#### COMING EVENTS

September	14th - M.A.S.I. General Meeting - Prudential-8:15 P.M.
	13-18 Blackhawk Aquarium Soc. Show - Moline, Ill.
	17 & 18 - H.A.A.S. Show & Workshop, Kansas City, MO
	23-25 - A.L.A. Convention, Show, Workshop, DesMoines IA
	24th - Executive Council Meeting - Willemin's - 8:15 P.M
October	12th - M.A.S.I. SUPER BOWL '77 - General Meeting, Prudential - 8:15 P.M.
	22nd - Executive Council Meeting - Keim's - 8:15 P.M.
November	9th - M.A.S.I. General Meeting - Prudential - 8:15 P.M.

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#### GENERAL MINUTES August 10, 1977

The regular meeting of the Missouri Aquarium Society, was called to order by President Dave Masters at 8:16 P.M. There was approval of the last General Meeting and a Treasurer's report given by Ken Keim. Ken said that we received a \$15.00 check from the Metro. East Club as they are closing down and dividing there balance up between the area clubs.

- Paul Powell gave a brief Show Report and again announced that the next meeting was to be held at the Master's on the 28th of September and at that time calsses would be discussed.
- Frank Simmons said that we had received two new books for the library - They are Fresh Water & Marine Aquarium & Koi of the World.

Ralph told of nis and Ray Custer's help with the Lamp Lighter's in setting up a tank at Cardinal Glennon Hospital and that they were still in need of a few items for it.

Dave announced that Bill macrum returned for the A.C.A. Convention and that MASI was given the bid for next year's Show and Workshop.

The Bowl Show winners were given and the Breeder's Award fish were sold.

Announcements of up-coming shows wer given - Heart of America, in Kansas City -- Black Hawk Aquarium Club, Tri-City area. Greater cichlid Association in Chicago. See Carol Willemin about details.

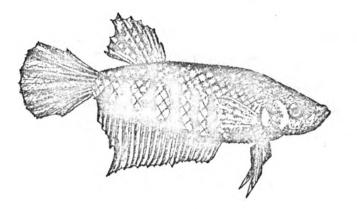
The meeting was adjourned at 8:50 P.M.

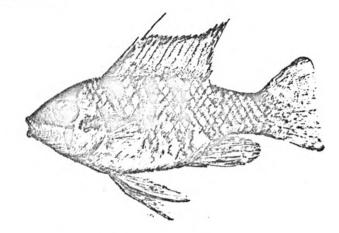
Respectively submitted, <u>Aharman</u> Masters Sharon Masters, Secretary

### EXECUTIVE COUNCIL August 1977

- The Executive council meeting was called to order by President Dave Masters at 8:25 P.M. at the home of the Cope's. Members present were Dave & Sharon Masters, Kenny Cope, Carol Willemin, Ralph Wilhelm, Tom Hopfinger, Paul Powell, Rich Crabtree, Frank Simmons. Also a visitor at her own home - Thelma Cope.
- Dave called for approval of the last executive council minutes & they were approved.
- Dave asked Tome for a report on the information about the A.C.A. convention for July of 1978. Tom received a letter from the catering manager of the Red Carpet Inn saying that we have the weekend of July 28-30 reserved of all rooms needed.
- Auction Ralph Wilhelm gave all council members a copy of his proposal of rules to consider for the auctions. They were read and changed alittle and approved. Rules & regulations to be printed in the bulletin before auctions.
- There was also a proposed revision for the Hobbyist & Novice of the Year Award given by Ralph. It was read & discussed and approved & will be printed.
- Kenny Cope announced that the ribbons & trophies for the Super Bowl were ordered.
- New Business A.C.A. Convention The council appointed three people to head the M.A.S.I. portion of the A.C.A. Convention. They are Chairman - Rich Crabtree - Subchairmen, Ralph Wilnelm & Mike Heinemeier. The meeting was adjourned at 10:01 P.M.

#### AUGUST BOWL SHOW RESULTS





#### FEMALE BETTAS

- Novice (no entries)
- Hobbyist (3 entries)
- lst Charlotte Hopfinger
  2nd Alden Joyce
  3rd Craig Hopfinger

DWARF CICHLIDS

Novice - (no entries)

Hobbyist - (4 entries)

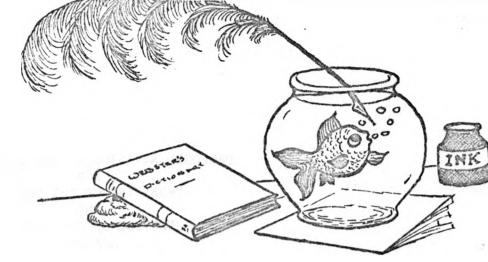
- lst Craig Hopfinger
- 2nd Ralph Wilhelm
- 3rd Charlotte Hopfinger

#### OPEN

(3 entries)

lst Ralph Wilhelm
2nd Thelma Cope
3rd Carol Willemin

September: Swordtails - low fins only, excluding Hi-fin or Lyretail Mollies - all varieties Open October: SUPER BOWL '77 November: Platies or Moons Guppies - 2 matched males Open



EDITOR'S MESSAGE

> HEAR YE! HEAR YE! Your Editor is pleased to announce that this month's issue of The Darter is an All M.A.S.I. Production, featuring four original articles contributed by our members! This is an issue we can all be proud of, and I hope the example of these members will help stir a few more pens into action out there in Memberland.

Several M.A.S.I. members, Joe and I included, are looking forward to some out-of-town Fish Fun later this month in Kansas City, at the H.A.A.S. Show and Workshop. I hate to be an old stick-in-the-mud, but we'll probably take the Bleeding Hearts back to see if they can repeat last year's victory. They were a bit crestfallen after losing their class to those Blind Caves here at home last spring. (Imagine the chagrin of losing to a pair of fish that don't even have any EYES!) Hopefully, they have recovered by now. It may have been my imagination, but when I went past their tank the other day, I thought I heard one of the males singing "Goin' to Kansas City....Kansas City, here I come..."

As Dave stated in his President's Message, now is a good time for everyone to get back into the "swim" of things. Participation in the monthly bowl shows has been lagging, and it would be nice to see a lot more bowls on those tables each month.

Now is a good time, too, to buy that new species of fish you've been wanting to add to your collection. Set them up in their new home, and sit back and enjoy watching them do their thing. Who knows? Maybe your observations will provide you with the inspiration for an article for The Darter!

Carol

#### PROPOSED REVISION OF REQUIREMENTS FOR "HOBBYIST OF THE YEAR" AND "NOVICE OF THE YEAR" AWARDS

It is proposed that the requirements for these awards as stated on pps. 1 & 2 of the M.A.S.I. membership brochure be revised to read as follows:

1. To be eligible for these awards, a candidate must have been a member for a minimum of six months. Anyone who is a member at the time of the monthly general meeting shall be deemed to have been a member for that entire calendar month.

2. A minimum of eight (8) points must be earned for attendance at the general meetings. If a candidate has been a member for less than 12 months this minimum shall be pro-rated for the number of months that he or she has been a member.

3. A minimum of eight (8) points must be earned for participation in the monthly bowl shows. If a candidate has been a member for less than 12 months this minimum shall be pro-rated for the number of months that he or she has been a member.

4. A candidate must enter the annual show, if he or she is a member during the month that the show is held.

5. A candidate must enter the Super Bowl Show.

6. A minimum of ten (10) points, must be earned for services to the society, other than those listed above.

It is further proposed that these revisions take effect at the beginning of the 1978 calendar year.

Respectfully submitted,

Balft Wilkelm

Ralph Wilhelm

(Ed. The above proposal was presented to the M.A.S.I. Executive Council on August 20, 1977. The proposal was voted on and approved as stated above, and will take effect on January 1, 1978.)

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#### SUPER BOWL

The Missouri Aquarium Society will hold its Annual Super Bowl at the general meeting on October 12, 1977. This show is second in importance only to our annual public show. All members are invited and urged to show their fish and compete for trophies. Experienced judges will be on hand to judge your fish. And remember, you must enter the Super Bowl to be eligible for Hobbyist and Novice of the Year awards.

#### CLASSES:

1. Guppies, Single Male

- 2. Guppies, Two Matched Males
- 3. Bettas
- 4. Catfish Adult size 3 1/2" and under
- 5. Catfish (not included in class 4), Sharks & Loaches - General rules apply.
- 6. Angelfish
- 7. Egglayers, all species (excluding those in classes 3, 4, 5 & 6)
- 8. Livebearers, all species (excluding those in classes 1 & 2)
- 9. Cichlids
- 10. Bowl Beautiful
- 11. Novice Open

- General rules apply.

- General rules apply.

will be judged.

judged.

- 1 gallon bowl or smaller. One female may be shown with male however, male only will be

- 1 gallon bowl or smaller. One or two females may be shown with male however, males only

- 1 gallon bowl or smaller.

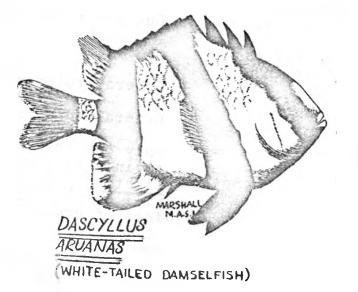
- General rules apply.

- General rules apply.
- General rules apply.
- Only one rule here. Fish must be in a flat sided drum bowl! Lighting permitted; electricity will be provided to within 4 feet of bowls.
- General rules apply. This Class is limited to members who have been M.A.S.I. Members for less than two years, and who have not previously won a major show award. <u>Novices may also enter Classes</u> 1 through 10.

Super Bowl classes and rules continued...

#### GENERAL RULES:

- A. Entry fee is 50¢ per bowl, <u>paid up members</u> only. No limit on number of entries.
- B. All fish must be shown in flat sided, bare drum bowls. No backgrounds, lights, rocks, gravel, plants, or any other decorations will be permitted, except in Bowl Beautiful class 10.
- C. One fish only per bowl, except in Classes 1, 2, and 10.
- D. Males or females may be shown; see special rule for classes 1 & 2.
- E. Fresh water fish in Classes 1 through 11. Salt water fish may be shown in classes 10 & 11 only.
- F. Set up time will be from 7:30 PM to 8:30 PM. Judging will begin at 8:30 PM.
- G. First place winners will receive trophies; second and third place winners will receive ribbons. Also given will be Best of Show and Judges Award.



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#### SUPER BOWL 1977

#### ENTRY FORM

Name:

Class	Entry	Number Vari	ety of Fish	Entry Fee
	_			
			×	

#### \$ Total Fee

Entrant agrees to abide by all the Show Rules, the decisions of the judges, and agrees to release the Missouri Aquarium Society, Inc. and Prudential Savings & Loan Association of any liability. All entries placed in the show at my own risk.

Signature of Er ant

Please submit entry form at registration table on evening of Super Bowl'77

#### NOTICE

#### REGARDING M.A.S.I. TREASURY

The M.A.S.I. Treasurer's Report is given at each monthly General Meeting, as part of the regular business of the Society.

Any M.A.S.I. member in good standing who may be unable to attend the monthly General Meetings, and who wishes to have further information regarding the Treasurer's Report, may receive such information by contacting M.A.S.I. Treasurer, Ken Keim, at the address and phone number printed on Page 3 of The Darter.

FOR SALE FOR SALE FOR SALE FOR SALE FOR SALE

Would like to trade prime breeding pairs of the following fishes for breeding pairs of any species I do not have:

Available Flame Tetras - Hyphessobrycon flammeus 7/1/77 Black Tetras - Gymnocorymbus ternetzi Cherry Barbs - Puntius titteya Gold Barbs - Puntius sachsi Tiger Barbs - Puntius t. tetrazona Florida Flagfish - Jordanella floridae Zebra Danios - Brachydanio rerio Corydoras Catfish - Corydoras aeneus v. albino Gold Crescent Platies - Xiphophorus maculatus Firemouth Cichlids - Cichlasoma meeki Kribs - Pelvicachromis pulcher

Available Jaguar Cichlids (8"-12") Cichlasoma managuense 10/15/77 Jack Dempsey Cichlids (6"-8") Cichlasoma octofasciatum Pink Convict Cichlids (3") - Cichlasoma nigrofasciatum Firemouth Cichlids (5") - Cichlasoma meeki Salvin's Cichlids (6") - Cichlasoma salvini Red Devil Cichlids (8"-12") - Cichlisoma citrinellum Texas Cichlids (8"-12") - Cichlasoma cyanoguttatum

Contact Ken Sommerhauser at 1-314-423-5838 for further information. Fry of the above species and many others generally available for sale or trade.

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Contac	Contact John B. Griffitts, 9757 Manchester Road, St. Louis, MO 63119				
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Contac	Contact Stuart Bernstein at 726-1493.				
	***	**			
THE STRIPES	T SO HARD! BE PROUD OF YOU HAVE, ONE MORE OR N'T MAKE YOU ANJY LESS	THINK OF IT THIS WAY; YOU ARE SPECIAL, NOT MANY OF OUR KIND HAVE 4 STRIPES. YOU'LL BE NOTICED, YOU MAY GROW TO BE A LEADER OF FISH.			





THE NOT-SO-MYSTERIOUS MYSTERY SNAIL

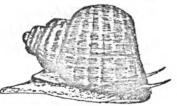
By Joy Bogacki

We bought 12 mystery snails, and have been lucky with them. We have them in a 50 gallon tank (with a cover, of course). The water is about 5 inches from the top. For the last few weeks we have been finding pink egg clusters all around the top.

Have you ever seen mystery snails laying eggs? Now that's mysterious. The other night, Jim was draining tanks. I went downstairs and was looking in the 50 gallon tank, and there was a snail laying (?) eggs. I stood and watched for about a half hour. It's neat! The egg comes from under the shell, out of a hole on the snail's "foot". Then the muscles in the "foot" inch the egg up or down, whichever way you are looking at it. As the egg inches down, it gathers slime. That's how they stick to the glass and to each other. The snail I watched must have laid about 60 eggs.

The eggs hatch in 14 to 21 days. The pink clusters start to look like a beehive when the snails start hatching. You can barely see the snails when they are born, but soon you start seeing small snails all over. They seem to grow very slowly.

You should try your luck raising mystery snails. Just make sure there is a tight lid on the tank, so that they don't crawl out.



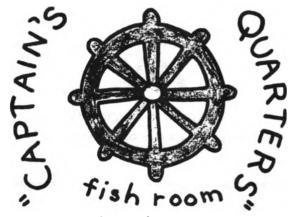


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#### CLIMBING THE WALLS

#### By Charlotte Hopfinger

Although this may not be a good time of year to start plans for landscaping around your pond, it could be the "bright light" for an indoor winter project. It also seems that I never get "brain storms" at the right times or seasons anyway, so the added decor for our fish pool was constructed in portable form so it can be moved into the house when cool weather begins to get serious.

We have had our outdoor fish pool for some odd six years. It measures 5' wide by 8' long by 2' deep and is constructed of poured concrete with a finished ledge of limestone around the perimeter. It extends 6" above the ground, and this elevation is covered with permastone. The pool is located in front of a 9' picture window below an overhang. Since it faces the street, it has been the focal point of decor for the front of our house. Inside of the pool there is a recirculating pump which aerates the 500 gallons of water by way of a spewing ornamental fish on a back corner, and a fountain which sits in the middle of the pool sends the water some 2 to 3' into the air.

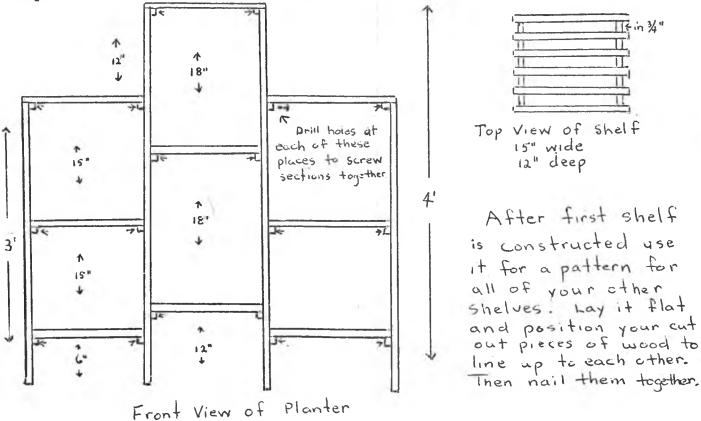
Even though we have had this beautiful focal point for years, I have always felt that more accentuating items of decor were needed to give the area a more lush appearance. It had been very difficult to get anything to grow behind the pool in front of the window because the overhang kept that area too shady and the earth was hard clay. We did decorate with grey chat rock around the pool and on the right side we added three ground-hugging evergreens. Several white sponge rocks were also placed in various locations, and all of this did made the whole set-up look "nice", but still bare. I felt we needed some more green and/or flowering plants sitting around at different elevations to provide more eye appeal.

House plants of different shapes, sizes, colors and varieties provided just the effect that was needed, and hanging baskets planted with annual blossoming flowers added more beauty to the setting. As I became more and more "hooked" on the many different and beautiful house plants I was collecting, the area slowly began to twine into a jungle spot. Soon the limestone perimeter of the pool was covered with pots. Something had to be done to elevate some of these blooming lovelies so each could be seen and appreciated for its own merits, in addition to doing the job for which they were originally acquired.

The solution came by way of a redwood plant stand that I constructed. This allowed the plants to literally "climb the wall".

I will give the dimensions and instructions for making the one which I am using. You can use the same idea if you like, and change the dimensions to suit your taste or fit the area that you need to fill. By following the simple basics, you can add shelves, raise or lower the stand, create different designs into L or U shapes, or you may even want to make one of yours go around corners. It is a real chance to do your own thing.

I chose redwood because it is not supposed to rot. The color will fade and take on a silvery appearance, but the basic unit should not fall apart due to deterioration. I began by measuring the space I wanted the stand to fill and laid out the dimensions to fit this area. My stand has three tiers of 3 shelves each. Each shelf is 15" wide and 12" deep. I bought strips of redwood in 8' sections,  $7/8 \times 3/4$ " wide. I used  $1\frac{1}{2}$ " No. 16 flat wire head nails to hold the shelf pieces together, and  $1\frac{1}{4}$ " screws are long enough because the wood is soft and you can screw the pieces together tightly with no problem, and the end of the screw is not exposed.



To see how my plant stand would look in proportion before I began its construction, and to figure out how many board inches I would need to buy for the project, I first drew the stand on paper in the scale of one inch of ruler equalling one foot of board.

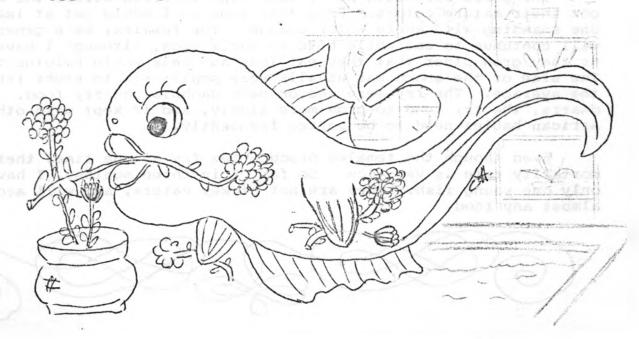
An extra special feature of this stand is that it is portable. It is free standing and unattached to anything, so it can be brought inside for the colder months where it can be utilized in the fish room. The plants can be taken in with it, and be placed back on it in its new location. Being only 12" deep, it does not take up a lot of room next to some tanks. The humidity of the fish room should be super for many of the household plants, and the light in the fish room may be adequate for some of the flowers. If you think more light is needed, you can add an overhead flourescent gro-lux tube which should do the job.

By screwing each section together, you can take some of the stand apart and use only part of it at a time. You can also use different sections in separate areas. The stand is quite sturdy. As spring approaches, you can put everything together again to go back outside. You may even want to add another section or two.

For those of us who live in the St. Louis area, you will have no difficulty in finding the redwood at Beyers Lumber Co., 9684 Olive Street Road, WY3-2445. They are the local redwood distributor, and not every lumberyard carries the redwood in these small strips.

The plant stand really does add to the outside pool decor, but it isn't necessary to have a pool to begin construction of one. You may have a small corner or wall space inside your home where one could find a permanent home. One located near, next to, or around an aquarium could add a new look to the setting with each complimenting the beauty of the other.

Happy Building!



y Marilyn Waterston

Stappersi are attractive dwarf Africans. It has been my good fortune to have a breeding group going for a while, producing numerous fry. Their breeding habits are similar to most of the Africans, but there are a few differences that I would like to relate.

My group contains about ten fish that are about two inches in length. They are housed in a 29 gal. tank with a PH of 7.4 to 7.8. I add a little salt to the water and keep the temperature at about 77° to 78°. They recieve a partial water change every five to seven days, but this change often varies from 20% to 50%. Light is received by the tank eight hours a day.

They were conditioned on a variety of foods, in fact just about anything at hand went into the tank. I am firmly convinced that fish in the wild receive a large variety of foods, so I try to vary my fishes diet as much as possible. They received daphnia, plankton, brine shrimp, mosquito larva, blood worms, small earth worms, a little Trout Chow, and Kordon flakes.

The group surprised me by beginning to breed before the males got their mature colors. From that time on I would get at least one spawning with every water change. The females, as a general rule, will contunue to eat while holding their eggs, although I have noticed as they grow older that they eat less and less while holding their eggs. The size of the spawn was usually very small; six to eight fry was the average. The fry were fed on baby daphnia and fry food. Being dwarts, the fry tend to grow more slowly, and if kept with other African babies need to be sorted frequently.

Even though the females produce few fry at one time, their mortality rate is very low. So far, ( in three months), I have lost only one young fish. They are not pickey eaters, and will accept almost any food.





#### DIARY OF A CONTEST FISH

#### By Ralph Wilhelm

This is my diary. I know - your first comment is "So? Who cares?". Well, I care, and that human on the other side of the glass cares, and I hope a lot of you will care after reading this.

For beginners, I am a hi-fin lyretail swordtail, and if you don't know what that is, you can stop reading right here. Don't remember very much of my infancy; my first recollections are of a large glass house, full of water, called an aquarium or "tank", which I shared with innumerable brothers and sisters. I'm not sure of my age, although I suppose I am about four to six months old. Age, hell! I'm not even sure of my sex, but I think I am a girl-type fish.

One day several people came to see my owner, and after a great deal of pointing and discussion, punctuated by a huge burst of laughter from my owner when the visitors said something about wanting "pairs", thirty-four of us were gently netted and unceremoniously dumped into a large plastic bag, which in turn was placed in a white styrofcan box. I thought I would panic when the lid was placed on the box; the sudden darkness and the confinement were frightening. My next memory is of a brief stay of several weeks in a strange tank, until once again we were placed in plastic bags and styro boxes, although this time there were only two of us in each bag. The next stop was a tabletop where we were stared at intently by many strange human eyes. After being lifted, peeked at, tilted, turned upside down and jostled many times, it was back to the styro box again. My new owner (a man with big eyegalsses and a belly to match) had two bags of I found out later that the other bag was for an absent friend. us.

Finally I reached my present, and I hope permanent, home. About time, too! I've had it with this "mobile society" bit. The four of us were named-somewhat whimsically, I fear - D'Artagnan, Athos, Porthos, and Aramis (you know...the sword connection). Naturally, being by far the most handsome and the obvious leader, I was D'Artagnan. My bagmate, now my tankmate, being the smallest, became Aramis. Athos and Porthos went to live in an adjacent 29 gallon tank with a number of small angelfish. Evidently, the constant relocation, the uncertainty of tomorrow, was too much for Athos. In a fit of depression, he commited suicide by leaping out of the tank, into the hostile, uninhabitable (for fish) air, and crashing to the concrete floor below. Perhaps he was merely being adventurous; we will never know for sure. Several days later, Porthos came to live with Aramis and I.

My new permanent residence, or tank, is guite nice. Not luxurious, but nice. It is an all-glass 55 gallon tank, and although there is a large crack in the rear glass, it has been neatly patched. The furnishings are sparse indeed, consisting of a long green porous object called an "airstone" which emits a constant stream of small air bubbles into the water, and a large, box-like affair hanging on the back of the tank, which is referred to as a "power filter". It is not exactly crowded, but there is a minimum of privacy, since my quarters are shared not only with Porthos and Aramis, but with a family of albino sailfin mollies, consisting of a mother and father and about thirty youngsters, one to two inches long. Then there's that group that lives in the basement, perhaps twelve of them, who occasionally pop us for a guick visit. Strangely, they all have the same name, Corydoras paleatus.

But really, I can't complain. The food is good and the menu varied. We get frozen brine shrimp quite often, a variety of five or six flake and dried foods, and an occasional treat of live baby brine shrimp, plus plenty of floating duckweed for snacking. Wish there were more algae to nibble on, though. The tank is roomy, and swimming in the current generated by the airstone and the power filter is not only fun, it helps me to strengthen my body and fins. And my human, although not exactly the world's best tankkeeper because he is rather sporadic with the water and filter changes, is kind. Quite often he pauses in his chores (he has about fifty other homes like mine of various sizes to maintain) to talk to me. Mostly he says things like "Eat your vegetable matter so you grow up big and strong", or, if I happen to be resting, "You okay?", or with a touch of anxiety in his voice if he doesn't see me immediately, "Where the hell are you?" (He still hasn't put a cover on my tank and is afraid I'll pull an Athos on him). And he has promised to let me attend the M.A.S.I. meetings in November and February. How's that for a nice owner?

Athos and I are putting on some size, but I'm afraid Aramis will always be small for his age.

That about brings me up to date. Drop by for a visit some time...we are always home. And don't forget to watch for the next heart-warming episode of "Diary of a Contest Fish".

'Artagnan

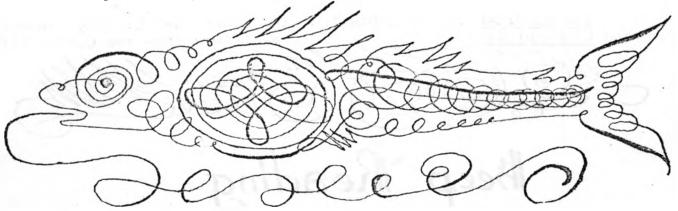




The opening line from <u>The Goldfish</u> reads: "...and yet I say unto you, that Solomon in all his glory was not arrayed like one of these." (St. Luke, xii,27). I feel this is a presumptuous statement about any fish. But I do understand what the author means, even if he does overstate it. (<u>The Goldfish</u>, George F. Hervey and Jack Hems, Pub. by Faber and Faber, London, 1968).

There is so much to relate about this book, it is hard to begin. The first extremely interesting chapter is entitled "Fancy Goldfish". It traces the history of Chin-yu (common goldfish) of China, which became the Kingyo of Japan. Most of the breeds of goldfish, it seems, originated in China. The Telescope, for example, is called Lung chin-yu in China--Dragon Eyes; the celestial is known as the Ch'ao-t'ien-yen, Star Gazer. Japan later became the center for goldfish, and developed the Oranda-- Oranda Shishigashua. It is a very interesting chapter, and contunues to describe each kind of goldfish and how it was developed.

Another wonderfolly interesting chapter was the one on the history of the goldfish. This is not, as with the previous chapter, a step by step tracing of each variety of goldfish; it is instead a history of goldfish in general. It seems that the goldfish was observed and written about as far back as the Chin dynasty, (China) 265 A.D., but was not domesticated until the Sung dynasty, 960 A.D. It is interesting that the goldfish made its first appearance in the Sung, for this was a period of great achievements in all aesthetic areas-- painting, philosophy, and religion being the foremost.



The goldfish arrived in Japan in the year 1500 and in England in 1691 and in France in 1750. Italy followed in 1755, Germany in 1784, and the U.S. trailing all the rest, introducing goldfish in 1859.

To get off the historical data for a while, this book also contains the requisite amount of practical information, such as how to set up a tank for goldfish, how to care for them, how to breed them, etc. The chapter on live foods is very informative. The section on selection and transporting is fairly good, and has an excellent drawing of an "unspillable" traveling can. The can allows air in and out, but can never spill. There is also a chapter on showing goldfish. It outlines what to look for when selecting a show fish from your stock, and also how to prepare your prize fish for the big show. Believe me, there are some good hints in this chapter.

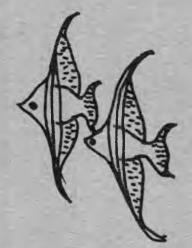
One of the final chapters is called "The Goldfish and All the Arts". This is another chapter that delves into history somewhat, but it is well worth reading. The author points out that the goldfish can be found in paintings (especially in China and Japan), in stories, and poetry. One poem that is particularly nice is by a Chinese poet named Hu of Hsin-an. He was ordered by the Te-shou-kung to "catch gold and silver fish". This poem is quoted in full at the end of the article.

This book was one of the best that I have read in a long time. It is not only informative but is also entertaining, a rare combination in aquarium literature. It is more than obvious that the author has done his homework. Each chapter has a heading with a quote from some book or play pertaining to goldfish. He has done more research into the history of the goldfish than I have ever read.

<u>Know How to breed Livebearers</u> is a typical small book. As with so many small books, very little information that is unique can be found within. Much space is given over to the laborious process of explaining why PH is important, and what temperature is best. (I get tired of reading the same old thing). This, then, is obviously a beginners book. (<u>Know How to Breed Livebearers</u>, Albert Klee, The Pet Library Ltd.)

The book explains how livebearers breed, and how to protect the babies after they are born. There also is a fairly interesting chapter on crossbreeding, inbreeding, and outbreeding.

The Goldfish is avaliable from the County and U. City Library, and Livebearers is avaliable from the County Library. Beep Reading



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