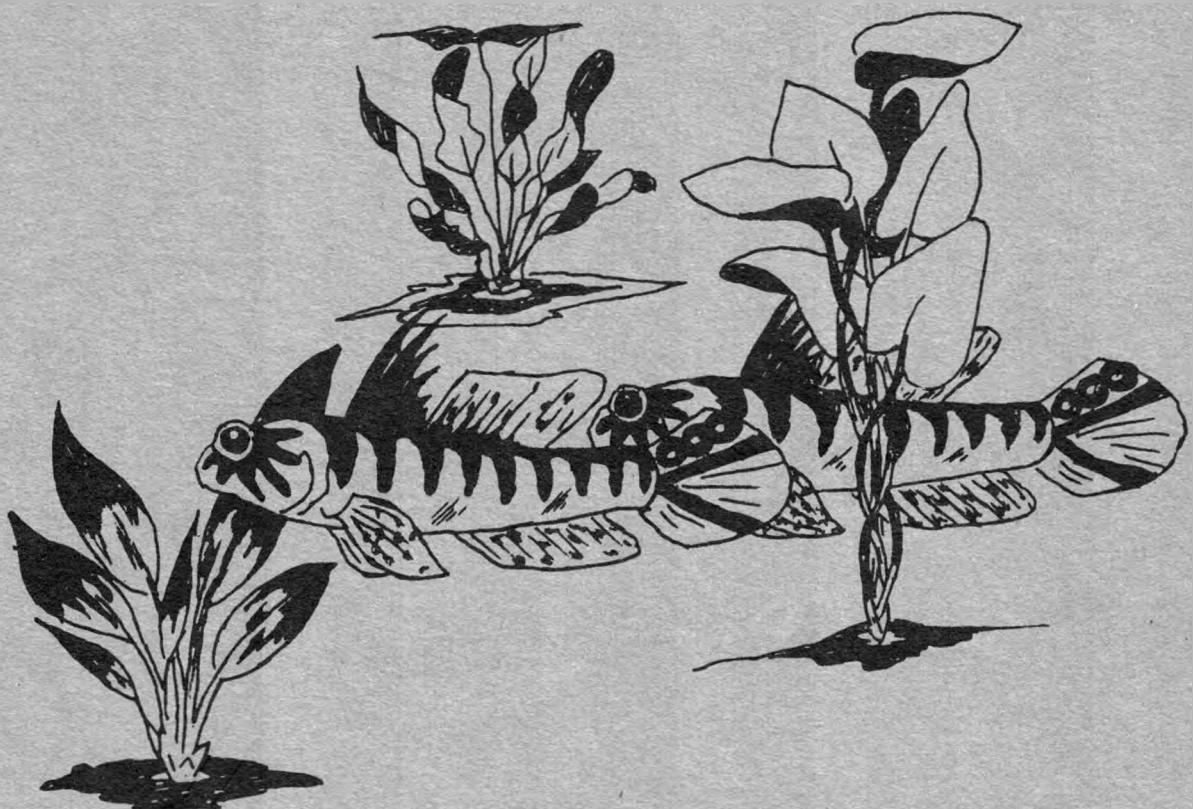


MAY, 1911

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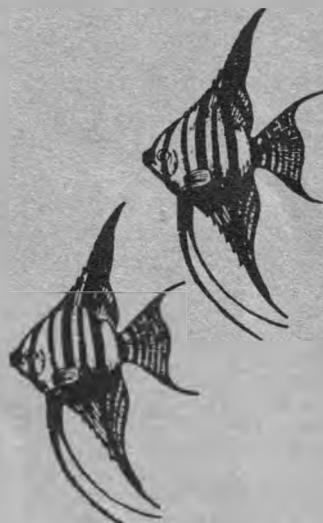
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Powell, Marilyn Waterson, Ken Keim & Rick Smith [Also The Raven]

### Collating

Bogackis, Kusters, Hopfingers, Carol Willemin, Klaus Bertich, Frank  
Simmons and Ralph Wilhelm

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

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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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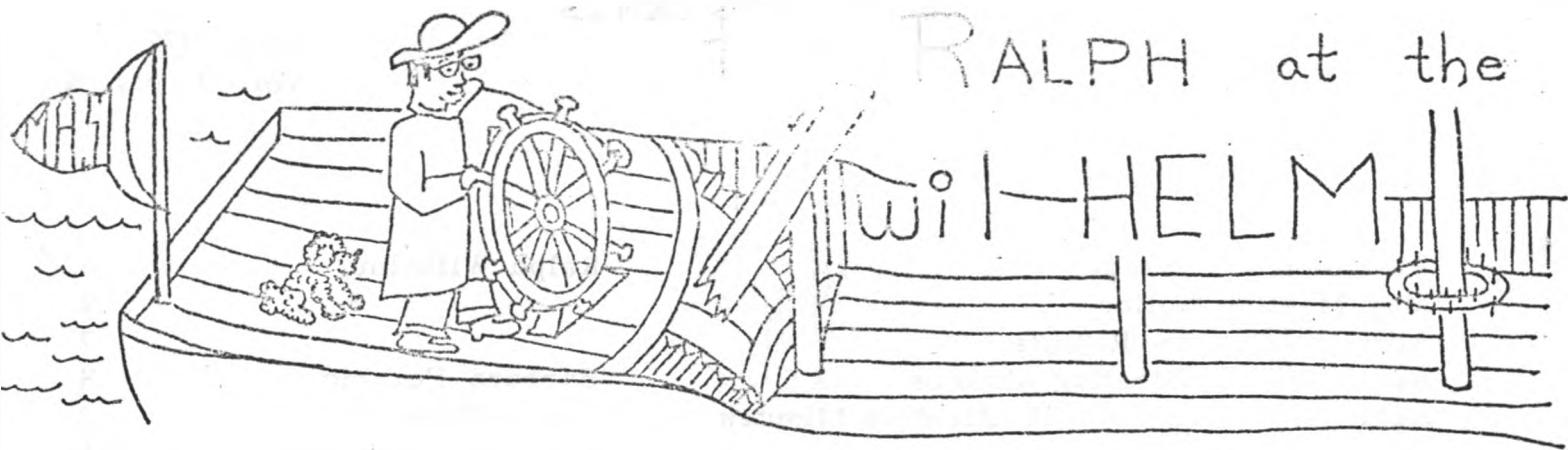
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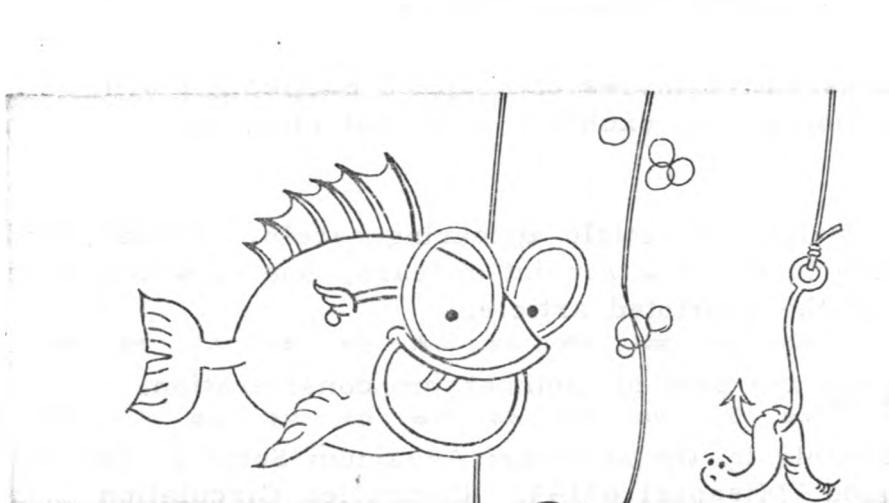
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Boy, am I tired! One thing we forgot to include in the Show/Workshop schedule is sleeping time. But now that the weekend is over, it's that pleasant kind of tired. The Show/Workshop was obviously a success, although up until last Wednesday evening you would have had a difficult time convincing Larry, Tom, and me that it would be. Why does everyone wait until the last minute? Don't they know how hard that is on the people putting these affairs together?

I hope everyone who attended any part of the activities enjoyed themselves as much as I did. Seeing familiar faces of out-of-town visitors, some for the third straight year, was a highlight for me, and their highly favorable comments were just icing on the cake. I heard several criticisms, but they were constructive criticisms, and obviously intended to help us improve the Show & Workshop. Many visitors seemed to be impressed with the quality of the fishes shown, and the friendliness of the M.A.S.I. members and their efforts to see that everyone had the best time possible. That's what it's all about.

Well, I've got tanks to clean, gravel to wash, etc., etc., to get my fish room back in shape after a week or so of neglect. To all of you who participated in any way, my grateful thanks.



*Ralph*  
*W.H.*

MAY MEETING NOTICE

Time and Date:

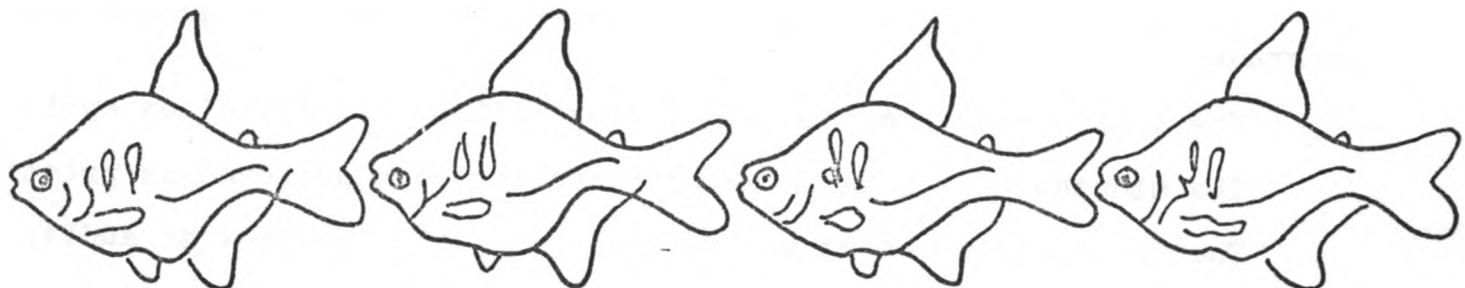
8:15 P.M. Wednesday May 11th

Place

Prudential Savings and Loan  
Community Room 6th floor  
8020 Forsythe, Clayton, Missouri  
Park in garage - lower level

Bowl Show

Guppies - male only  
Bettas - male only  
Open



APRIL BOWL SHOW RESULTS

Bowl Beautiful

Hobbyist  
(2 entries)

1. Ken Sommerhauser
2. Rick Smith

Novice  
(No entries)

Saltwater

(1 entry)  
1. Ken Sommerhauser

(No entries)

Open

(No entries)

June: Catfish - Corydoras only  
Danios - all varieties  
Open

July: Angels - all varieties  
Goldfish - all varieties  
Open

Last month's bowl show was very sparce. The novice entries have been very sparce in the last few months. This is an easy low cost way to compete. Let's all get behind the bowl shows and enter - enter - enter - enter.

## GENERAL MEETING MINUTES

The regular monthly meeting of the Missouri Aquarium Society, Inc. was called to order by the President, Ralph Wilhelm, on April 14, 1977 at the Prudential Savings and Loan.

Mr. Wilhelm announced that the auction chairman has bidders numbers available for the Show Auction. Mr. Kuster is prepared to assign them tonight.

On April 30 the Tri County Aquarium Society of East Peoria will hold a Workshop. See this Darter for further details.

A nominating committee meeting will be held tonight following the regular meeting. Officer nominations will be announced in the May Darter and the election will be held in June at the regular meeting. The new officers will take office at the July regular meeting. Nomination from the floor will be welcomed at the June meeting.

Mr. Wilhelm asked that all members be more attentive during the programs.

The April Executive Council Meeting will be at Ralphs' on April 16.

The minutes of the March regular meeting were approved as printed.

The Treasurer's report was received and filed subject to audit.

The Show Chairman, Larry Allbright, said that entries are coming in mostly from out of town and encouraged members to get their entries in as soon as possible. The Show/Workshop plans are proceeding and promises to be a good weekend.

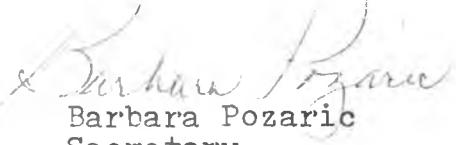
Carl Berry, raffle chairman, asked that members sell thier tickets, more are available. Since he has not had any results turned in to him, as yet, no money report is possible at this time.

Frank Simmons, librarian, announced that the ACA Bulletins are available as well as TFH. These publications may be used at the meeting and not taken from the library.

Door prizes were awarded and results of the Bowl Show were announced.

Meeting adjourned.

Respectfully submitted,

  
Barbara Pozaric  
Secretary

## EXECUTIVE COUNCIL MINUTES

The April Meeting of the Executive Council was called to order by President, Ralph Wilhelm, at his home on April 16, 1977.

Council Members present were Larry Allbright, Carl Berry, Rich Crabtree, Ken Cope, Tom Hopfinger, Paul Powell, Frank Simmons and Ralph Wilhelm. Visitors present were Jim and Joy Bogacki, Thelma Cope, Louise Crabtree, Ray and Sue Kuster, Barb Powell, Ken Sommerhauser, and Joe and Carol Willemin.

Minutes of the March Executive Council Meeting were approved.

Treasurer's report was approved with detailed reporting waived due to the complexity of the cash flow at this time.

It was reported that Annual Show entries thus far are low, and a discussion was had regarding the benefits of advertising.

The raffle report from Carl Berry indicated that although more tickets are out, returns so far are behind last year's.

A Nominating Committee report was given by Carl Berry, and the following list of nominees was read and approved:

President: Dave Masters

Vice President: Carol Willemin

Secretary: Sue Kuster  
Sharon Masters

Treasurer: Vince Audrain  
Ken Keim

### Executive Council

Stuart Bernstein  
Carl Berry  
Ken Cope  
Rich Crabtree

Mike Heinemeier  
Tom Hopfinger  
Bill Little  
Roy Maechler

Paul Powell  
Frank Simmons  
Ken Sommerhauser  
Ralph Wilhelm

Nominations from the floor will also be had at the May General Meeting, with the election to be had at the June General Meeting; new Officers and Council Members to take office in July.

Barb Powell reported that insurance rates for liability insurance to cover the Annual Show had more than doubled, and motion to reject buying the insurance was seconded and unanimously approved.

Ralph Wilhelm reported that the Show Committee had decided to take no further action regarding show racks or table extensions for this year's Annual Show. Draping for tables had also been rejected because of cost and set-up difficulties.

The post office has advised that from now on for all future issues of The Darter must either have sleeves or be in envelopes.

Motion to purchase or seek donation of a 10 gal. full set-up with fish for the Auction was seconded and approved.

Discussion was had regarding the need for programs at all general meetings.

Ralph Wilhelm read a letter from Mrs. Weinzerl, who brought a group of Cub Scouts to Super Bowl last October. She said they enjoyed it very much, and a suggestion was made by Ralph Wilhelm that we encourage more such participation by children in the future.

Tom Hopfinger reported that Cardinal Glennon Hematology Center has requested our help in setting up a 50 gallon aquarium at the hospital for the enjoyment of the children there. Motion by Paul Powell to give them all the help we possibly can was unanimously approved. Anyone willing to help with this project should notify Paul.

Ken Sommerhauser reported on the Breeders Award Program. Revisions have been made, and the revised program will be resubmitted to the Council when the typing has been completed.

Upon motion duly made, seconded, and unanimously carried, the meeting was adjourned.

Respectfully submitted,

Carol Willemin

CICHLID  
CROSSWORD

SOLUTION

Here is the solution  
to the Cichlid Crossword  
printed in the April issue  
of The Darter.

		T
		MORPH F
	O	I
		EGYPTIAN
L	H	S
DWARF	PSEUDO	M
E K	O	B
V E	P	DISCUS
T I	ZEBRAS	DEACON
CICHLID	G N	M ANAL
L	I G	G R P L J
A K	R	ELEGANS ALGAE
PORT	T	L M E R W
I I		FISHY E E
A BRICHARDI		JULIE
	S	S A S
FIREMOUTH		MALAWI
R I S	O I S	
Y PEACOCK	O M	
A	ROE	
ROCKS	I	
	I	

## EDITOR'S MESSAGE



If you were not around for our April 22 - 24 weekend you really missed another "really big show". The people who were in attendance had many good things to say about our workshop, show and related activities for our main event of the year. I apologize for not having all of the details of the weekend for you in this issue of The Darter; however, time has once again prevented us from getting it all together because we had to go to press on the 27th of April.

I am really disappointed in our M.A.S.I. members for not providing one original article to me this month. Ken Keim was the only person to mail me his monthly column. Our President did get his in and our minutes are also up to date. So there you have it all from the home town fans! I realize that we all have been busy. I am very familiar with that word and its meaning. But if we are going to publish a monthly magazine containing the name of our society, our own club members should be providing the "meat" of the published material contained therein. We will go to reprints when ever the need arises, and I suppose this issue of The Darter is a shining example of that need.

I would like to digress back to our weekend again to personally thank all of the out of town friends who supported M.A.S.I. and came to learn, fraternize, swap fish talk and party with us.

I understand Jim White mis-understood one of our classes and tried to enter a duck under "Aquatic Animals". How did you keep that animal quiet on the plane, Jim? Pat Mussatto and Martha McMuffin came in early Saturday morning to make sure no one walked off with Frank Bayne's original oil painting before they had a chance to bid on it at the auction.

Pat's bidding was successful, and she once again became the proud possessor of Frank's beautiful picture for the third straight year. Congrats!

Because of the attendance from our out-of-town guests we can add the word "Successful" to a well-planned weekend. We do appreciate each and every one of them who took the time and spent the money to be a part of our endeavor. M.A.S.I. thanks "you all".

We still need another page of advertising for our magazine. Please sell some ads if you can. This is another way you can help your club.

See you at the meeting,

*CH*

REPORTED CURE!  
By Paul Bailey

(Reprinted from Boston Aquarium News, January, 1975)

While visiting a fellow aquarist one day I came upon one of the most distressing diseases I have ever seen. It was called "Hole in the Head" and looked exactly like that. I am told that it spreads quite fast among cichlids and can be fatal. It almost appears to be a skin cancer and is quite ugly. I am also told that this particular bacteria is comparable to the cause of 'Shingles' in humans. Every human as well as Cichlids contains this bacteria; however, through the normal intake of proper vitamins automatic antibodies fight this bacteria. When the vitamin content breaks down, the bacteria develops into "Hole in the Head". This disease begins with small holes, usually found above the eyes in the center of the head. As it progresses, outside bacteria infects the diseased area and causes deterioration of the skin cells causing the disease to spread.

About a month later I noticed my prize Oscars showing the beginning of "Hole in the Head". Determined to cure them before it was too late, I did the following:

1. Isolated infected fish. (Do this only if possible - not necessary)
2. Disconnected all filtration.
3. Increased Aeration.
4. Diatomized the tank to clear water. VERY IMPORTANT.
5. Use a mixture of copper up to .3ppm and up to 500mgs. per 10 gallons of Tetracycline (TC capsules).
6. Let tank set for three days.
7. At the end of three days, there should be some improvement.

If not:

Diatom again using JUST diatomaceous earth and repeat process.

If there is an Improvement:

Diatom tank with LOTS of carbon and earth, hook up filter.....AND BE HAPPY.

I found it necessary to use this method twice. After about four weeks there was no sign of any infection.



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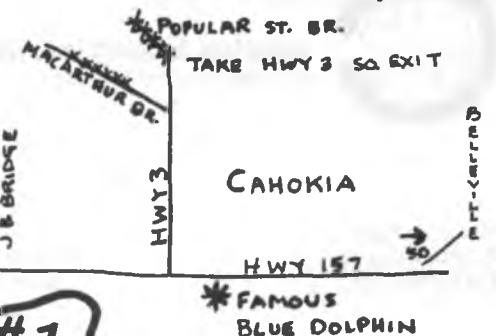


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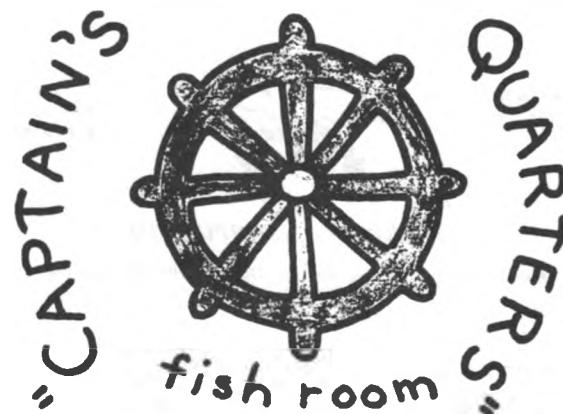
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M.A.S.I. ANNUAL SHOW WINNERS FOR 1977

Class 1 Freshwater Aquarium

1st - R & S Bragga  
2nd - Mike Heinemeier  
3rd - Carol Willemin

Class 2 Saltwater Aquarium

1st - Ken Sommerhauser  
2nd - Alden Joice  
3rd - Alden Joice

Class 3 Novelty

1st - T & C Hopfinger  
2nd - Marilyn Waterston  
3rd - Rich Crabtree

Class 4 Male Guppy Grey Body

1st - Don Weinzerl  
2nd - Don Epple  
3rd - Don Weinzerl

Class 5 Male Guppy 1/2 & 3/4 Black

1st - Dick Scheidt  
2nd - Mike Hoffer  
3rd - Don Epple

Class 6 Female Guppy

1st - Mike Jinkerson  
2nd - Mike Jinkerson  
3rd - Mike Hoffer

Class 7 2 Matched Male Guppies

1st - Don Weinzerl  
2nd - Bob Newton  
3rd - Don Epple

Class 8 Egglayer Family Breeder

1st - Ralph Wilhelm  
2nd - Pat & Patty Keith  
3rd - Jerry Lindquist

Class 9 Egglayer & Livebearer Breeders

1st - Jim & Nancy White  
2nd - Ralph Wilhelm  
3rd - T & C Hopfinger

Class 10 Saltwater Single Fish

1st - Alden Joice  
2nd - Alden Joice  
3rd - Ken Sommerhauser

Class 11 Livebearers

1st - Ralph Wilhelm  
2nd - Mike Hoffer  
3rd - John Griffitts

Class 12 Cichlids

1st - Rich Crabtree  
2nd - Carl Berry  
3rd - Doug Caldwell

Class 13 Anabantids

1st - Pat & Patty Keith  
2nd - Dick & Peggy Yarlott  
3rd - Carol Willemin

Class 14 Tetras, Barbs & Rasboras

1st - Ken Sommerhauser  
2nd - Carol Willemin  
3rd - Anthony Piparo

Class 15 Angels

1st - Mike Hoffer  
2nd - Larry Allbright  
3rd - Dick & Peggy Yarlott

Class 16 Killiefish

1st - Bob & Chris DuBois  
2nd - Carol Willemin  
3rd - Roger Porter

Class 17 Catfish, Sharks & Loaches

1st - T & C Hopfinger  
2nd - Jerry Lindquist  
3rd - Pat & Patty Keith

Class 18 Freshwater Single Fish

1st - Pat & Patty Keith  
2nd - Dick & Peggy Yarlott  
3rd - Phil Thielen

Class 19 Goldfish

1st - Mike Hoffer  
2nd - T & C Hopfinger  
3rd - T & C Hopfinger

Dealer Class

1st - Pier I - Manchester Store  
set up by Laura Drane

M.A.S.I. ANNUAL SHOW WINNERS FOR 1977 CONTINUED:

Best Fish In Show

Mike Hoffer - Calico Ryukin

Best Aquascape

Rick & Sharon Bragga

Judges Award

Alden Joice

Best Novice Exhibit

Carl Berry

Best Invertebrate

Alden Joice

Judges

Frank Bayne  
Patrick J. Austin  
Larry Arnold  
Ron O'Brien  
Ed Gralewicz  
Dr. James Thomerson  
Jim Thale  
Jack Connery

---

M.I.B.B ANNUAL SHOW WINNERS FOR 1977

Division A 26 Entries

1st - Vicki Weishaup  
2nd - Cliff Green  
3rd - Cliff Green

Division G 17 Entries

1st - Charles Hale  
2nd - Cliff Green  
3rd - Marie Bryant

Division B 9 Entries

1st - Ruth Palmer  
2nd - Charles Hale  
3rd - Charles Hale

Division H 10 Entries

1st - Bob & Barb Weston  
2nd - Jary Bell  
3rd - V. Sensibaugh

Division C 7 Entries

1st - Cliff Greed  
2nd - Charles Hale  
3rd - M. Borson

Division I 14 Entries

1st - Charles Hale  
2nd - Dixie Bottorff  
3rd - Marie Bryant

Division D 13 Entries

1st - Sue Liebetrau  
2nd - M. Borson  
3rd - M. Borson

Division J 6 Entries

1st - Charles Hale  
2nd - Marie Bryant  
3rd - Vickie Weishaup

Division E 22 Entries

1st - Charles Hale  
2nd - K. Taylor  
3rd - Vicki Weishaup

Division K 12 Entries

1st - Sue Liebetrau  
2nd - Cliff Green  
3rd - Vicki Weishaup

Division F 16 Entries

1st - V. Sensibaugh  
2nd - Charles Hale  
3rd - Bob & Barb Weston

Best of Show - Male

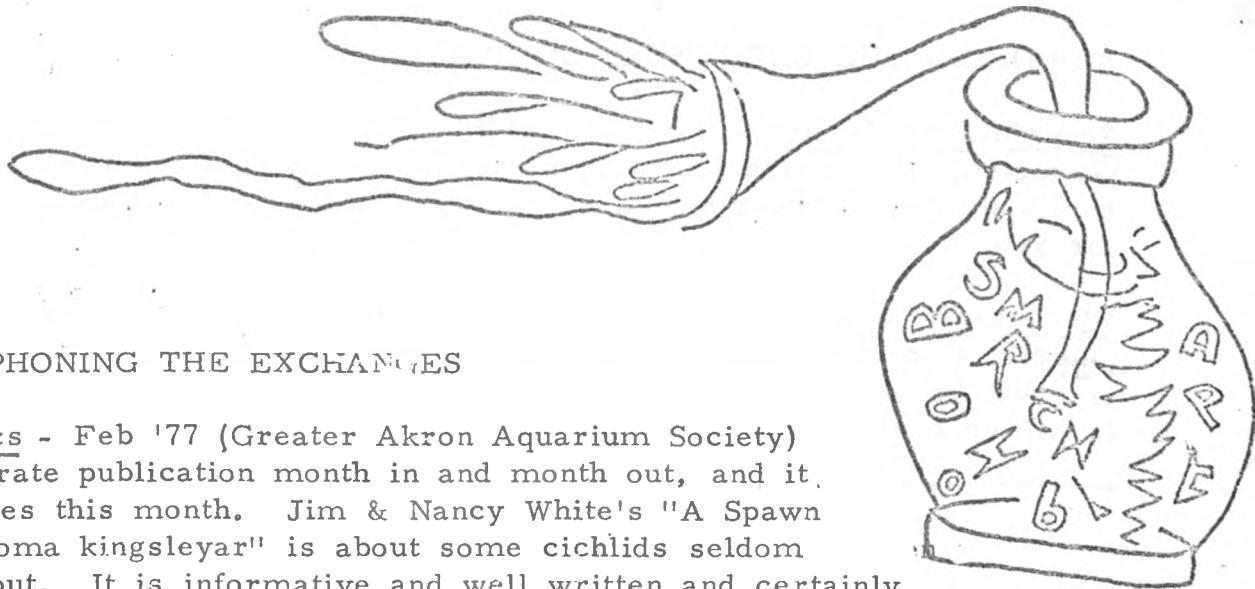
Sue Liebetrau (Division D Entry)

Judge

Dr. Gene Lucas

Best of Show - Female

Charles Hale (Division J Entry)



## SIPHONING THE EXCHANGES

Tank Topics - Feb '77 (Greater Akron Aquarium Society) is a first rate publication month in and month out, and it really shines this month. Jim & Nancy White's "A Spawn of Ctennopoma kingsleyar" is about some cichlids seldom written about. It is informative and well written and certainly worth reading. Rick Johnson is into the occult. "Raising the Devil" is an exceptional article about a majestic fish. Come on Rick, give the rest of us a break and write an average article at least once a year to make us feel good.

Youngstown Aquarist - Feb '77 (Youngstown Area Tropical Fish Society) "Lets Talk Cichlids" by Edwin (Bud) Welty is about raising cichlid fry. A lot of good general information is included in this article. While you're at it, take a look at "Spawning A Wall Unit" by Alice Sassone. You might want to grace your living room with this project.

Fins & Friends - Feb '77 (Regina Aquarium Society) "Finny Friends" by Brian Newman deals with Swordtail's finnage, Bleeding Heart Tetras and Anabantids - Paradise Fish. Vince Lapino's "Easy -Ers" explains how to construct an inexpensive, but attractive room divider.

Livebearers No 31 (American Livebearers Association, Inc.) "Pease Offerings" by Damaris Pease shows us a couple of methods of cutting down on the time consuming job of changing water. Well less time spent to carry buckets of water has to be a "pleasing" situation.

Fin Fare - Jan '77 (Victoria Aquarium Society) "African Frogs - Spawning Hymenoshirus" by Virienne Boswick is an interesting bit on an interesting addition to an aquarium. Although not large enough for frog legs (1 inch in length at maturity). Hymenoshirus might be a real leap ahead for your tanks.

Pisces Press Feb '77 (Nassau County Aquarium Society) "See Spot Run, Or Swim" wait a minute, an article about a swimming dog in an aquarium? Not really, Brian Scanlan raps about spotted gars that can reach four feet in length, and at that size the dog might be the bate.

The Nekton - Jan '77 (Saskatoon Aquarium Society) would you like me to introduce you to Killifish? Allow me then to bring you "Random Thoughts on Killifish, Part 1" by Dennis Lehmkuhl. It is a very nice general article on getting started with this beautiful fish.

## SIPHONING THE EXCHANGES CONTINUED:

The Goldfish Report - Jan '77 (Goldfish Society of America) If you love Goldfish you'll cherish this golden article. "Goldfish Diseases & their Cures" by Carol Wallace seems to a non goldfish fancier to contain a whale of a lot for you.

Plecostomus - Feb '77 (Blackhawk Aquarium Society, Inc.) What's more patriotic than the american flag fish? "Of moss and mops" by Dick Van Hylte is about an american Killifish that might just be your contribution to your tanks for our 201st birthday party.

---

## WELCOME NEW MEMBERS

Blake Etheridge  
R.R. #2 Chipwood Lane  
Centralia, Illinois 62801  
Corresponding

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## WHAT TO DO WHEN THE EDITOR IS HOUNDING YOU

by Pat Mussato

Editors of aquarium society publications have tried everything (short of bodily harm) to get members to write articles about their experiences in the hobby. Some will offer money, some have an "article of the year" competition, and almost all clubs bribe members for articles through the BAP (Breeders Award Program) by offering extra bowl show points for fishes in some categories. . . if they were bred and raised by the owner and a BAP report turned in to the editor of the club bulletin.

So what do you do when the editor is hounding you? I mean those awful, terrifying moments when he/she approaches you face to face and says, "I heard you talking about your "Whatcha makallit". That would make a great article for the club bulletin! And we could really use the article!"

What a dirty trick! There you were, innocently telling a fellow member about some silly nothing that happened in your fishroom, and now you're stuck! (I mean, how can you say no when you're cornered like that? !)

Well, help has arrived. Tell yourself, "I think I can, I think I can", and sit yourself down at a comfortable table (with a decent light) and think.

### INSTANT ARTICLE

If you're really being pressed and need the article for the next issue, then do not set your goal too high. Getting too involved in a rushed situation does nothing more than frustrate you (especially with a first effort). The "masterpiece" type article will be discussed later under the heading "Writing an Article".

Now what you need is a "Quickie Article". This kind of writing done in a hurry, does not necessarily mean a short article. It simply means something that can be easily written from memory with no preparations. Here are just some of the subjects that would be good for "quickie articles":

1. Set-ups: Do you set up your tank in a certain way to better accommodate a community situation? How do you set up spawning tanks for various fishes you have had? Have you ever had a bad result from keeping certain species together? Which ones?
2. Fish Room: How do you have your fishroom set up? Is there anything you feel is unique about your fish room, wiring, heating, your method of exchanging water, or maybe some homemade racks you designed yourself?

3. **Foods:** Do you mix your own paste food? Do you culture your own live food? Have you ever collected live foods? What is the frequency of feeding for your fish and why?
4. **Diseases & Cures:** Did you recently have a sick fish and cure it? Did you have something contagious in your tanks you could warn about? Have you ever removed parasites from your fish and how?
5. **Shows:** How do you get ready for a show? How do you condition your fish for shows? Have you seen any shows put on by clubs lately that you could tell about? Do you have ideas for a new class or any suggestions for improving your club's shows?

Needless to say, there are hundreds of other topics. For "quickies", anything you can write from memory can be a good subject. Just write as though you were talking to someone.

#### WRITING AN ARTICLE

Let's assume you've turned in your "quickie article". Your editor is delighted! But NOW is the time to start on a regular, full-fledged article. NOW begin taking notes! Start marking your breeding tanks with dates, frequency and amounts of water changes, spawns, foods offered and notes on acceptance, growth of fry, etc. (If you're the type of hobbyist who had done this kind of thing all along, then you wouldn't even have to worry about "quickie articles".)

I think the easiest way to write an article is to use chronological or diary form. Your daily notes and tank markings turn into an easy outline to follow. But start with:

Step one: Choose a subject. Stick with something specific and cover it well. Too often writers will try to cover too much in one article and valuable details are often lost in generalities.

Step two: Introduce your subject briefly. If you're writing about a fish, tell its Latin name, where it's from (and I don't mean where you bought it), and describe its color and size at maturity. That's ALL for the introduction! I've found that it is at this point that many writers begin telling things that (for the sake of organization) are best left until later. Gather your notes together, copy your tank markings on a separate sheet of paper and lay everything out in front of you.

Step three: Tell about the fish you purchased. (This cannot be included in the introduction because fish are individuals too and perhaps the ones you have will not fit into a general description of "Most" of the same species.) Write about

the NEXT thing that happened to your fish in the sequence of events during your experience with them. As you're writing (and thinking), eliminate those activities that you know are unnecessary, e.g. floating the bag in the tank before releasing the fish into it (unless you are writing an article aimed at the neophyte). If your initial purchase was adult fish, tell (in sequence) of your experiences with them. Could you determine their gender right away? If so, describe the differences between male and female at this point and for the remainder of the article you can refer to each fish as he or she with no fear of causing a non sequitur further on in the article. If you bought fry, your sequence would remain basically the same as with the adults, but it would include the details of raising them to maturity. Either way, write of tank set-up and why you set it up that way, water temperature and conditions, foods offered and frequency of feedings, any losses and why they occurred if you know, etc. This is also the time to tell of any special info about your subject. Are they aggressive toward one another or other species that may be in the tank? Are they aggressive eaters and do they eat or tear up plants? Anything that you found interesting about this fish should be included in the article here.

Step four: Relate breeding information, if any. If you have bred these fish, this is the time to tell about the success or failure you experienced. However, don't include any info about size of the eggs or try now. That is (as is spawning info) a subject all by itself. Here in step four, just explain how you conditioned the pair for spawning, whether or not you used a separate tank, if their behavior toward each other changed in any way, etc. (Here again, put the series of events in chronological order.) When your description finally arrives at the actual spawning, you can easily run right into....

Step five: The care of the eggs and fry. Report on all details of the care of the eggs. Did you leave them with the parents. If you hatched them artificially, what method did you use? You can bring the subject of the adults back in this case to tell of their part in caring for the eggs and perhaps to tell of their part in caring for the eggs and perhaps their attitude toward each other after spawning. If you did allow them to raise the fry, how soon was it before they showed signs of wanting to spawn again. Did they become hostile toward the first spawn as the second spawning approached?

## What to do when the editor is hounding you - Continued

Step six: Think up a quick closing. It could be anything. Perhaps you could say you did (or did not) enjoy the experience of working with this species. Or maybe you really like the fish, but you find they are almost impossible to get rid of... you can't even give them away. For the closing, even a sentence is alright. Putting a closing sentence or paragraph at the end of an article is as important as using a period after a sentence. But do not feel it has to be some fantastic, original witty beat of wisdom.

## EPILOG

After you feel comfortable doing articles in chronological or diary form, branch out and try something different. But for now, I hope you can feel reasonably secure in turning in articles to your frantic editor by following some of the suggestions listed above.

One last tip... to really put the "frosting on the cake" include black and white photos or drawings (whenever possible) to go with your article! Your editor will love you!!

(Reprinted from CICHLID CHATTER, bulletin of the Chicago Cichlid Assoc., P.O. Box 48357, Niles, IL 60648)

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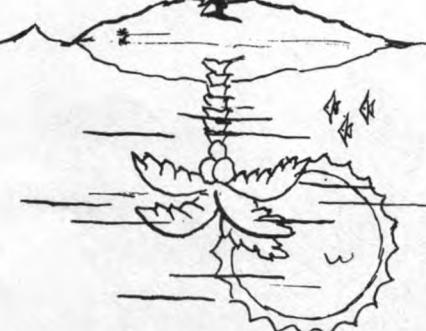
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## ELECTIONS ARE COMING

Remember nominations will be open for you to make any nominations you would like for officers for 1977-1978. If you would like to place a name in nomination please do so, but it is always a good idea to verify that the individual you wish to nominate is willing and able to serve before you make the nomination. The nominating committee has completed its work. The list of nominees is included in the minutes of the April Executive Council meeting. Be sure to look over this list and see if you wish to add any names.



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## DWARF CICHLIDS

By Brian Newman

(Reprinted from The Valley Stream, October, 1973)

What happens to you when someone mentions the word cichlid? Unless you are what is commonly referred to as a "Cichlid Nut", you probably shudder as your mind conjures up an image of a large vicious fish with an insatiable appetite, and an avid dislike for plants as this is the standard image presented to aquarists by most members of the family Cichlidae. This is also an accurate portrayal of their overall characteristics. Mother Nature, in her infinite wisdom, has provided this particular family of fish with special attributes such as: Attractive colors, intelligence and a well developed sense of parental responsibilities which not only tend to overshadow their bad features, but have also served to endear them to thousands of hobbyists throughout the world.

Now, you too can enjoy these remarkable fish without worrying about such mundane things as large tanks, destroyed plants and swallowed tankmates. This seeming miracle can be brought about by the aquisition of some Dwarf Cichlids which have all the desireable characteristics of their larger brethren and none of their bad habits. For example, Dwarf Cichlids are so timid that convenient hideaways must be provided for them. These retreats may vary in size and composition depending upon the whims of the aquarist and the materials available. Caves made of rocks or small glass jars embedded in the bottom media, upturned flower pots or densely planted greenery are all acceptable.

If you happen to be one of those who is blessed with a wet thumb and tends to worry about the plants in your aquarium, fret no more as the Dwarf Cichlid will do them no harm. In fact, the use of aquatic plants is essential if you are to derive the maximum benefit of their beauty. The presence of plants has a tremendous physocological effect on these small fish as is evidenced by their behavioral patterns. Should you choose to maintain your Dwarfs in what is referred to as a "Cichlid Tank" (one in which the material used in aquascaping consists primarily of rocks and other indestructible materials) you will seldom see the fish, and when they do appear, they are likely to be very flighty and very drab in so far as their color is concerned. Now take the same fish and place them in a well planted aquarium which includes some hiding places and watch the amazing transformations which take place. Their color will

improve and more importantly, the behavior of the fish will change. With adequate hiding places available, the fish will not use them unless they are startled and they will become much more venturesome, usually being found in the forefront of the aquarium.

There are a few points that should be kept in mind if you are to keep and enjoy your Dwarf Cichlids. One of the most important of these is that these fish are cichlids and as such are very territorially minded.

Each fish or pair will stake out a section of the aquarium as their own and woe betide the individual who oversteps these boundaries. If the aquarium in which these fish are housed is small (under 10 gallon) it is desireable to restrict the number of cichlids to a single pair. Although the Dwarfs are beligerant towards others of their own kind, they will seldom antagonize other fish. Small favorites such as Tetras, Catfish, Platies and Barbs make excellent tankmates and provide interesting contrasts in appearance, color and behavior.

The location of the aquarium is also very important as the Dwarf Cichlids are very shadow conscious. To small bottom dwelling fish, sudden shadows are indicative of the presence of predators, and the fish will instinctively streak for cover. To alleviate the discomfort suffered by you fish, the tank should be placed at shoulder level, or failing this, as high as possible. Dwarf Cichlids should not be subjected to living quarters near the floor as any passing traffic which gets between the tank and the outside light source will create the fear inducing shadows.

Physically, the Dwarf Cichlids are small fish with the average mature male reaching a size of  $2\frac{1}{2}$  inches while his mate is approximately  $1\frac{1}{2}$  to 2 inches in length. Color patterns are generally rather subdued with the various shades blending into one another with no one color being dominant. Despite the recommendations of many of the older reference books, these cichlids are not delicate, nor are they fussy when it comes to water conditions. They will thrice in water which ranges from a hardness of 7 ppm to 14 ppm, and can withstand a pH of 6.6 to 7.8 with no adverse effects. Satisfying their appetites is no challenge as they will accept dry food, live foods, and frozen foods equally well, although periodic feedings of live and frozen foods are beneficial to their health and well being and will be reflected in the color of the fish.

These fish have acquired an undeserved reputation as being hard to spawn. I say, undeserved, as my personal observations are that these are among the easiest of the egg laying species to produce if they are provided with proper conditions. The key word here is proper. Dwarf Cichlids

belong to the group of fish known as the egg hiders. There is only a very fine line dividing these fish from those referred to as egg anchorers with the difference being that the anchoring fish will generally place their eggs out in the open where as the diminutive size of the Dwarfs forces them to resort to stealth rather than aggressiveness when it comes to their eggs and fry. Thus, the Dwarf Cichlids will usually spawn in a semi-secluded area such as a cave or a depression in the gravel near the side of a rock.

Once the spawning sight has been selected and approved by both parents, the behavior of the fish is essentially the same as that exhibited by their larger counterparts. The female fish allows herself to be coaxed to the selected location where she deposits her adhesive eggs in a group. The male follows close behind her fertilizing the spawn. At this time the female changes from a meek mild type, to a raging tigress and drives her mate, who is often twice her size, away from the nest. The eggs hatch within a space of 3 to 4 days and the young fish may be seen squirming helplessly on the bottom. Another 48 hours sees the yolk sac absorbed and the young become free swimming. At this point they are ready to begin eating, and the usual first food is infusoria or its artificial counterpart.

My Dwarfs reside in a well planted ten gallon aquarium which they share with an assortment of fish. Included in their tankmates are: Lemon, Neon, and Glowlite tetras, Catfish, and some small barbs. No special effort is expended in conditioning the breeders as I feel that if a pair of fish are properly cared for, they will naturally be in spawning condition at any given time. The diet of the fish consists of at least 3 feedings per day, the first two of which are dry foods such as Tetramin, and the third and final feeding which will be either frozen brine shrimp, beefheart, or catfood. The water is very hard and alkaline in nature with the pH being about 7.6. The temperature is maintained at approximately 76 degrees and an abundance of plants are used. At present, these plants include: Bacopa, Vallisneria, Hygrophilia and a few Cryptocornes.

The resident cichlids now are a pair of Nanacara which have spawned at least once a month for the last four successive months. The usual spawning site selected by this particular pair of fish is a small glass jar which is embedded in the sand. I have not yet been able to observe the actual spawning of the fish and must rely upon the behavior of the parent fish to tell me when the population is about to explode. This is readily evidenced as the female will remain with the eggs and will not deset them even for her favorite food. Meanwhile, the male fish will be busy standing guard duty outside the cave, keeping the quick moving Barbs and Tetras at bay. It is at this point I decide whether or not I wish to keep the entire

spawn. If my decision is affirmative, the other occupants of the tank (Barbs and Tetras only) are removed before the eggs hatch. I do not remove the parent fish. The Catfish are permitted to remain with the parent fish and the eggs. My reason for doing this is that I believe that if the parents are left alone with their spawn they may become bored and may eat the eggs or the young fish. By leaving the Catfish in the tank, the protective instincts of the adults are kept finely honed and the chances of the spawn being eaten are greatly diminished.

Once the young have become free swimming, they are led from the nest by the female. They stay under her protective fins until they are almost large enough to begin raising families of their own, and is during this period that one comes to appreciate the care that the female takes in providing for and defending her young. Should the mother feel her babies are being threatened, no intruder is safe from her lightning like attack. When the fry begin to sally forth from under mother's finnage, it is time to commence feedings of newly hatched shrimp. The rate of growth is directly related to the quantity and frequency of these feedings, with small frequent feedings providing the best results.

Should you desire to save only part of the spawn, the most opportune time to salvage the selected specimens is when they first emerge from the nest. This is easily done by inserting a small ciphon hose in the tank and gently removing a portion of the spawn to a separate rearing tank. For this purpose, I prefer to use a one gallon aquarium as the small area permits the fry to locate their food with a minimum of effort. As the young grow, the largest and most active are removed to a larger tank. This serves a dual purpose in that it permits the fast growing fry more room to develop and enables the slower developing fish to get a larger portion of the available food.

Another method used consists of removing the eggs from the community tank and hatching them independently of the parents. If you desire to adopt this method of raising the young, you must remember the following points: 1) The water used should be from the same tank the eggs were laid in, 2) An airstone should be placed near the eggs in order to prevent dirt from settling on them, and 3) A medication such as aciflarine must be added to the water to inhibit the spreading of fungus which will result from the unfertilized eggs.

Of the three methods mentioned previously, I prefer to use the first method as it has been my experience that this tends to produce larger young than either of the other methods. This means more work for the aquarist but the end result is well

worth the extra effort extended. A community aquarium, while not essential, does make the spawning of these small fish a lot easier as the presence of tankmates who are not normally shy and retiring seems to instill a sense of confidence in the parent fish. Nervous, scared fish will not spawn successfully so anything which can be done to put the prospective parents at their ease is bound to be of assistance. Then too, a community aquarium is generally one which has been established for some length of time, and as a result is teeming with myriad little creatures called infusoria which are the normal first food of the fry. The value of these infusoria are readily apparent if the fry are raised in separate tanks, as they will not get the good start as those left with their parents in the community aquarium will.

Now meet some of the Dwarfs:...

#### NANACARA ANOMALA

These fish, known as the Golden Eyed Dwarf Cichlid are native to the Quianas and attain a maximum length of 2½" and 2½" for the males and females respectively. The color of the male fish consists of an overall metallic green with each scale being edged in black. The elongated dorsal and anal fins of the male fish are orange to yellow in color and are also edged in black. As in the case with most Dwarf Cichlids, the female is rather drab except while protecting either her eggs or her fry.

#### APISTOGRAMMA AGASSIZI

These are one of the most easily recognizable fish in the hobby due to the shape of the male's tail. The middle and surrounding rays vary in length and combine to produce a unique diamond shaped appendage, all of which is outlined in black. Color is variable, but it is usually a brownish yellow with a blue sheen on the sides shading to red in the lower frontal regions. A horizontal black stripe extends from the mouth, through the eye to the tip of the tail. The dorsal, ventral and anal fins of the male fish are blue or violet with edging which may range from orange to brilliant red.

#### APISTOGRAMMA ORTMANNI

Another native of the Guianas which is classified as a Dwarf Cichlid is A. Ortmanni whose body is basically brown with a yellowish area in the lower portion near the gills. A broad diagonal stripe runs from the eye through the gills plates. Males will sometimes exhibit a few irregular yellowish bars in addition to pink finnage. The most noteworthy item in regard to the females is their yellowish finnage and the jet black edging on the ventral fins.

#### APISTOGRAMMA PERTENSE

The yellow Dwarf Cichlid comes from the Amazon River basin and has a body color which may range anywhere from

olive to a yellowish brown. There is a horizontal black stripe which begins at the mouth of the fish and runs through the eye and a dark spot in the center of the body before terminating in another dark spot at the base of the tail. The dorsal and caudal fins of the males are grey in color with alternating light and dark bars.

#### APISTOGRAMMA RAMERIZI

The Ram, or butterfly Dwarf Cichlid is perhaps the best known of the group. Basic body coloration is the same for both sexes and consists of a blend of yellow, blue, green and black. Unlike most of its close relatives, the dorsal and anal fins are not long and flowing, but instead are made up of several spiny rays which are jet black in color and numerous soft colorless rays.

A second variety of the Ram is the golden Ram which takes its name from the golden cream colored body which it possesses. These fish were developed from mutants appearing in spawns of ordinary Ramerizi and lack the green and black pigment although under proper lighting, blue highlights may be noticed. The optimum size for aquarium bred Rams is approximately two inches.

#### APISTOGRAMMA REITZIGI

A. Reitzigi is easily recognized by the length of the dorsal and anal fins of mature male specimens. The last few rays of each of the fins are long enough to extend past the outer edge of the rounded tail. Body color is a slate-like grey with a yellow belly. All scales are edged in black and provide an attractive reticulated pattern.

#### PELVICACHROMIS PULCHER

Here we have a fish which does not resemble any of the other so-called Dwarfs insofar as the shape of the body is concerned. This is due in part to the geographical difference in their native habitat. The Pelvicachromis Pulcher genus is found in the western portion of Africa.

P. Kribenses has of course been named and renamed several times, but will almost always be referred to as Kribensis by the majority of hobbyists. The colors of this fish have created almost as much excitement as the fuss over their name. The upper portion of the body is warm brown shading to gold in the area below the lateral line. A brilliant wine red bluishness is evident in the anterior portion of the lower body. Dorsal and anal fins have a violet sheen to them and are edged in orange. Black markings consist of three vertical stripes in the area of the head, and several eyelike spots in the dorsal anal and caudal fins.

There is much more which can be written about the foregoing fish and the other members of their species which constitute the loosely defined group referred to as Dwarf Cichlids, but the best way to learn more about them is to become a "SMALL CICHLID NUT".

Thank You,

Thank You,

Thank You,

To each and everyone who participated in our April show/workshop weekend.

Let's do it again next year! Mark your calendar well in advance so you won't forget.

## GROWING AMAZON SWORD PLANTS

Echinodorus brevipedicellatus, or Amazon Sword as it is commonly known, is the most beautiful centerpiece for any size aquarium in my opinion. Before we start discussing the plant, I will give you a little background of my beginning to raise these plants. My first Amazon Sword Plants were a gift in 1946 from my brother, who was editor of the Aquarium News Views of the Amateur Aquarium Club of Chicago. Since then, my original plants have kept me and my fish-hobby friends well supplied. My tanks start at 5 gallons with a total of 32 tanks (ranging up to 70 gallons) making a total capacity of 660 gallons. All tanks have aeration, gravel, box filters and fluorescent lighting. This set up information is to give you an idea of the equipment I use to grow these plants.

The first point to consider in growing beautiful Sword plants is the water. Regardless of your water condition, PLANTS WILL GROW IN IT. From my experience over the years, water that is fit to raise fish in is fit to grow plants. This is as simple to explain as I can the water situation.

Now we will get to the bottom of raising these plants - which is the gravel and the roots. In my tanks, the gravel is fine in some, medium in others, and coarse in the rest. I have found that plants grow best in the medium and fine gravel. The color might not be important, but it seems to have some bearing on the growth. In dyed colored gravel such as red, green, yellow and blue, the plants do not develop very strong roots or grow very fast. The roots of the plants in colored gravel were not as hardy and, in most cases, were the color of the gravel. In natural brown gravel the plants did much better. However, I have found that black gravel produces the fastest plant growth and very strong white roots. The black gravel is sandblasting gravel and is not dyed. The conclusion I have come to is that black gravel absorbs the light rays and heat to promote plant growth.

The next point will be water temperature and gravel. The temperature range in my tanks varies from 68 to 72 degrees, depending on the size of the tank and the fish. My Mollie tanks are kept at 72 degrees with black gravel and produce some of my most beautiful plants. The Albino Sword tanks are kept at 70 degrees with brown gravel and also produce beautiful plants.

In my Guppy tanks, kept at 68 degrees with colored gravel, the plants are very slow growing. In my Guppy tanks kept at 68 degrees with black gravel, the plants grow very fast. In my 70-gallon community tank, with coarse marine gravel, the plants do not do very well. This indicates the difference between the temperature and gravel in growing plants.

(Continued)

## Growing Amazon Sword Plants - Continued

All my tanks contain Mystery Snails (*Ampullaria cuprina*) and it is not a mystery what they do for my plants. First they help keep my tanks and plant leaves free from algae. Mystery snails are safe because they do not eat plants like other species. Second, they help to cultivate the plants by burrowing into the gravel around the root areas. Thus, the waste material or plant food drops down into the root area allowing the plant to get more nourishment.

The theory of snails being essential to good plant growth was proven to my satisfaction in an experiment that I conducted. Two identical tanks were set up under the same conditions. Both tanks had black gravel, fish, lighting and the same size plants from the mother plant. (The mother plant is the plant that throws runners and produces new plants.) After a period of two months, the plants were growing beautifully in the tank with snails..... In the tank without snails the plant leaves were a dull light green and were starting to turn brown. There was no comparison in the growth of the leaves. After four months, the tank with the snails was developing mother plants, while the plants in the other tank were deteriorating. When I supply fellow fish fanciers with snails, they tell me their plants improve in size and color.

The last point is lighting. Light plays the single most important part in the growth of plants. All my tanks have either cool-white or daylight fluorescent lights. I prefer daylight because they throw a light closer to natural sunlight. They are either full-hooded lights or strip lights hung 6" above the tanks. I have tried gro-lux lights with sad results. The plants did well the first couple of weeks, and then started to deteriorate. Removing the plants from the gravel, I found that the roots did not develop as fast as the leaves. When you have large leaves and short roots, the leaves do not get enough food and start to deteriorate. Obviously, the roots cannot keep up with the fast growth of the plant. This is another experiment you can try, if you care to find out for yourself.

If your Amazon Sword Plant stops growing and the leaves turn transparent, follow these steps:

... Remove the plant from the gravel and examine the roots carefully. If the stub of roots in the center of the crown has turned black or is dead, remove it. This stub of roots stunts the growth of your plants.

... In removing this stub, leave the outside roots alone.

... Replace the plant in the tank, and within a short time you should see a marked difference in growth.

... Plants should be trimmed regularly by removing all the bad and brown leaves. I trim my plants about once a month. The proper way to trim your plants is to remove the outer leaves around the root line. This will give the roots a chance to develop and grow and to supply the leaves with more food to grow on.

(Continued)

## Growing Amazon Sword Plants - Continued

These are some of the things that I have found helpful in growing beautiful Amazon Sword plants.....and I hope that they will help you.

By: Bruno Sliz  
Something Fishy  
Elgin Aquarium Society

Reprinted from Literal Line  
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### COMING EVENTS

May        11th - M.A.S.I. General Meeting - Prudential Savings - 8:15 P.M.  
              21st - M.A.S.I. Executive Council meeting - Pozarics - 8 P.M.

June        8th - M.A.S.I. General Meeting - Prudential Savings - 8:15 P.M.  
              18th - M.A.S.I. Executive Council meeting - Crabtree's - 8 P.M.

July        13th - M.A.S.I. General Meeting - Prudential Savings - 8:15 P.M.

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### TREASURER'S REPORT

As there were only two days from the ending of our annual Show and Workshop to complete all our financial transactions for the weekend the Treasurer reports that he is thoroughly confused, tired, mixed up and if there were any money left he would be on his way to Jamaica for a rest. There will be a report made before the general membership at the next meeting, and then entered into the permanent records of the society.

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