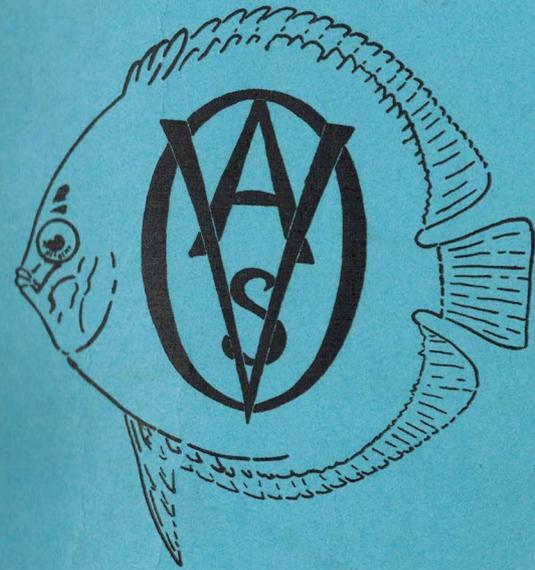


O V A S NEWS



OFFICIAL PUBLICATION

OF THE

OTTAWA VALLEY
AQUARIUM SOCIETY

OTTAWA VALLEY AQUARIUM SOCIETY
OTTAWA 3,
ONTARIO, CANADA



THE OTTAWA VALLEY AQUARIUM SOCIETY

MEETINGS

JUNIOR SOCIETY

Thursday, October 16th 7.00 PM
Thursday, November 13th 7.00 PM

SENIOR SOCIETY

Thursday, October 23rd 8.00 PM
Thursday, November 20th 8.00 PM

Regular meetings are held in the Medical Building, University of Ottawa, Room 237, Nicholas and Somerset Streets, Ottawa.

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THE OTTAWA VALLEY AQUARIUM SOCIETY

The Ottawa Valley Aquarium Society was founded on the eleventh day of March, nineteen hundred and fifty-four.

The object of this Society is to further the study of aquarium life, the spreading of information regarding it, and the promotion of good fellowship among fanciers of aquarium life.

The Ottawa Valley Aquarium Society consists of two bodies, a Senior and a Junior Society, each operating independently. The Junior Society was founded on the fourteenth day of April, nineteen hundred and fifty-five.

Membership is open to all persons wishing to acquaint themselves with this hobby. Each person may attend two meetings and on the third meeting, application for membership, accompanied by the membership fee, shall be made to the Membership Committee.

The Ottawa Valley Aquarium Society publication "THE OVAS NEWS" is published by the Society, a non-profit hobby organization, and copies made available to all members. Subscription rate for non-members is \$2.00 per year.

The opinions, statements, and view points expressed in THE OVAS NEWS are those of the authors and not the Society.

Advertising rates on request from Editor.

UNLESS OTHERWISE INDICATED, THE CONTENTS OF THE OVAS NEWS MAY BE REPRINTED PROVIDING CREDIT IS GIVEN TO THIS MAGAZINE AND THE AUTHOR OF THE ARTICLE.

This Society is a member of The International Federation of Aquarium Societies (TIFAS).

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Area No 3 Mr Ken Craig
Area No 4 Mr Jack Dirks

TIFAS REPRESENTATIVE

Mr Edgar Parisien

.....

ATTENTION
SENIOR MEMBERS

Please note the following changes in our regular meetings for NOVEMBER and DECEMBER

NOVEMBER 20TH - 3rd THURSDAY

and

DECEMBER 11TH - 2nd THURSDAY

XXXXXXXXXXXX

SENIOR SOCIETY OCTOBER MEETING

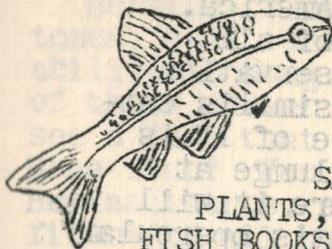
EVERYONE SHOULD NOTE THAT the meeting for this month ONLY will start at 8.00 PM SHARP with the movie "SETTING UP AN AQUARIUM". This film, made, edited and loaned to us through The Aquarium Stock Company Inc, U.S.A., will be of interest to the beginner, intermediate and advanced hobbyist. Seven months ago we tried to obtain this movie and only through long range reservations were we able to finally obtain it.

The highlight of this meeting will be the main speaker, President of The Canadian Aquaria Society, Toronto, Chairman of The International Federation of Aquarium Societies MR W.L. WHITERN, F.Z.S., who will speak on Mollies.

As Mr Whitern will be speaking on Mollies the fish of the month (jar show) will be the BLACK MOLLIE (male).

Roger Trottier
Programme Committee

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THOSE ODDBALL CATFISH
by Bill Doyle, "Tank Talk", Midwestern Aquarist Club, Omaha Nebraska, U.S.A.

The catfishes, comprised of a number of families, are usually looked with disdain by the person who is uninformed on the natural history of fishes. However, if one looks closely, you will see they are unique, and have amazing habits and strange forms.

See that stick moving about the aquarium? Well, that is a Farlowell-catfish. Odd? Yes, but it's just a starter. Familiar with everyone by now, are the Synodontis catfishes from Africa. They attract attention because of the crazy mixed up equiliberial system, which keeps them upside down all the time.

Ever see a fish walk? Pick up one of your Plecostomus catfishes and place it on the floor. By golly, it even runs? Plecostomus catfishes of 10" or larger are amazingly adept at this. The glass catfish
(Cont'd page 6)

Krytopterus, from South Asia is transparent. So are the seldom seen glass cats from Africa and South America.

One of the most vicious of all fishes, as far as visual observation goes, must go to the Tridensimilis catfishes. This small creature of 1" is parasitic. It will make a lunge at another fishes' gills. There it will attach itself by means of it's opercular spines and begin to live off of it's host's BLOOD! After it and others kill it's host, they move on to other and healthier fishes. These catfishes are completely transparent and are extremely active without a host. In fact, they will make you run for the tranquilizers just by watching them dash about.

Screwball looking, would best describe the Agmus and Buenocephalus catfishes. These animated bits of simulated rockwork are really show pieces. They will fool you, though. Sometimes they even try to swim like other fishes do. Crazy! Acanthaderas and Hemidoras are our "talking" catfishes. Pick them out of the water and as their pectoral spine moves, they emit a croak not unlike that of a small frog.

Poisonous Corydoras! Huh? Yes sir! If you don't believe me, handle a couple of hundred while filling an order. Later your hands will begin to swell and throb. Mild, yes, but quite uncomfortable, believe me.

There is a catfish in Africa known as the Electric Catfish, which can discharge an electrical shock. Not only that, but at times it will make like a bulldozer and move the sand all over the tank, placing even some of it out of the aquarium. Stupid fish...

Mouthbreeders? In catfish? Yep,

(Cont'd page 7)

remember those catfish that bite on the Coast when nothing else will? That's them.

Hartia, Lorcaria, Otocinclus, Plecostomus, etc., are all well known for their ability to hang in any position by means of their sucker mouth. But did you ever see a fish that needs a shave all the time? None such? You are wrong. The Ancistrus, Hemiancistrus, etc., have long fleshy filaments all over their chin and snoot. Some are really long, like grandpa's beard. Have you seen a Microglanis? Usually very small, they are quite pretty. Some of them are striped like a bumblebee, yellow and black bands. They are from South America.

And there is a catfish from South America that is reputed to...well, you wouldn't believe that anyway...

So you see, we have 'em round, square, thin and fat, long and tall, short and... everywhich way. Try a tank with a few unusual types and see for yourself if they aren't weird and interesting.

WANTED

by Roger Trottier, Programme Director,
OVAS Senior Society

On numerous occasions we are asked if any one has small tanks to sell in the Swap Sale? These tanks would serve as breeding tanks, hospital tanks, nursing tanks and a host of other duties. Should you have an EXTRA one bring it along at the next meeting and help your fellow hobbyist.

Another request is for young fry...ANY TYPE. Some members enjoy raising them - they have difficulties in overcoming the trials of raising their own but do very well with those of others. The experience

(Cont'd page 8)

HYPHESSOBRICON PULCHRIPINNIS

(LEMON TETRA)

by Mr Herman Vant Erve - OVAS Senior
Society.

Origin - The PypheSSobricon Pulchripinnis comes from the surroundings of Para (Brazil).

Characteristics - The colours of these fish are in contrast to many of their kind, soft of shade. However, because the colours speak for themselves, it is a fish which certainly belongs to a community tank, a condition that constitutes an ideal environment. The females are a little darker (redder) than the more slender males.

Manner of Life - Men keep the Pulchripinnis, which reach a length of well over 4 cm. (or 1-1/2"), for preference in a tank with a dark bottom, thick border planting of fine plants, and some floating plants (e.g., Riccia, Salvinia, etc), and a proper swimming space. It is recommended that one lets sunlight in the tank especially in the morning. The fish shall reward you then with their most beautiful colours, whereby the contrast between the bright yellow and deep black in the fins show up very well.

In the first part of his life, until half grown, you should be a little careful; however, after that you will have a stronger fish, which is not easily hurt.

There is one thing that you never should forget; the Lemon Tetra prefer crystal clear water which has a temperature of 64° to 76°F.

Breeding - When you have the intention to breed this sort, it is recommended that you feed the fish very well, if possible

(Cont'd page 11)

with mosquito larva and fruit flies. This delicacy will keep the fish from eating their own eggs.

The breeding tank should not be too small, 24 x 12 x 12 is the best size. It is necessary to remove the parents from the tank. You fill the breeding tank with fresh water which has a hardness of 60 DH (German degrees), after which you leave the tank for a couple of days. After bringing the water to the right temperature 76°F, you put the plants (myrophyllum or ceratopteris) in the tank. It is essential that the plants get the well known alum bath before putting them into the tank so that the Hydras may be killed, and so on. The water should be crystal clear, otherwise the eggs will become mouldy. Before the deposit of their eggs, you will see a very tempestuous driving of the male, who then becomes more and more quiet. The fish deposit their eggs usually on the upper part of the plants. Because of their slight adherence, a great many will drop to the bottom.

Though the eggs are not very sensitive to light, it is still advisable to cover the tank with some paper after removing the parents. Depending on the temperature, the young fish will come out after thirty to fifty hours.

It is important that the temperature during the first two weeks is not subjected to any fluctuation. The young fish are extremely sensitive.

Five days after the depositing of the eggs the young Lemon Tetras will swim freely in the tank, at which time the feeding is started. The best food is cyclopsnauplien. The youngsters will grow slowly the first few days, however, after about ten days they are able to eat a more coarse food, then the growing will become

(Cont'd page 12)

faster, and thus by good feeding you can, after only four weeks, see the first colour in their eyes and the tail fin.

After six weeks the young fellows are not completely grown, but have acquired their colour and are now ready to add their brilliance to your community tank.

WEST END
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He loved fishing so much that he thought everyone else ought to love it. In his zeal he took a novice with him on a fishing trip, furnishing all the tackle. The expert settled the novice in a likely spot and then began fishing not far away. In a little while the novice called; "How much do these red and green things cost?"

"You mean the float?" the expert

(Cont'd page 13)

replied, "Oh, about a dime I guess."

"Well," said the novice, "I owe you a dime; mine has sunk."

PRESIDENT'S LETTER
Senior Society

At our last meeting I was very happy to announce that Mrs Maria Watson, 2359 Tampa Ave, Ottawa, was the newly enrolled member to bring our total Senior Society membership to 100. This is the first time in our five year old Society that we have totaled 100 members. Last year we did exceptionally well with 86 members and I felt then that 1958 would be the year. This to me is a very good sign and does show that we are accomplishing a great deal, that our programmes are very good and that we are well organized. Now that we have reached the 100 mark we must aim for 200... YOU can help by bringing a friend to the meetings.

I received many fine comments regarding the selection of trophies presented to the winners of the tropical fish show. Now that you have seen the fine trophies that can be won maybe you will make plans to enter an aquarium next year.

We have found it necessary to change the dates for our November and December meetings due to the fact that the December meetings conflict with the Christmas holidays. I hope that this does not affect the attendance as these two meetings are the most important of the year when we have the nomination and election of the officers for 1959.

As the majority of members voted to have a dance this year we will make every effort to plan it for sometime in November.

Harvey Whittenberg

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IN MY OPINION

by Mr Ed Parisien - OVAS Senior Society

Green Water - One of the questions asked to many at our fish display was concerning green water. We know some of the causes but even the authorities don't know all about it. Too much light is one cause (especially direct sunlight). I have seen aquaria that were getting too much light and the water stayed clear until algae covered the plants. Only after the plants started to decay, did the water start turning green.

Over feeding will also encourage green water. In my opinion, white sand and strong light will surely cause it. My reasons...I have an aquarium with a mirror bottom and if I require green water all I have to do is put a 40 watt bulb in it, throw in extra food, and I have green water in a short time. My other aquaria seldom, if ever, get green with the same amount of light. The only remedy I know is cut down on light and stop feeding for 3 or 4 days at the first sign of green water. Brown paper around the aquarium will help. There are commercial chemicals sold which are

(Cont'd page 15)

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Senior Society

Fish of the Month

for

OCTOBER

"BLACK

MOLLIE"

(male)

.....

supposed to be good, but I would not advise them. Two or three weeks after using such stuff, the plants look kind of sick and the water smells to high heaven, then you decide to change the water and soon the green is like pea soup. Remember, green water that has cleared up will seldom become green again.

How Long Can I Leave My Fish Without Being Fed? - The answer is I don't know. But I do know that I have experimented with one pair of guppies. They were never fed once from the time they were two months old. The tank was covered with glass and there were no plants, gravel, or snails. They grew slow but steady and had enough energy left to do what comes

(Cont'd page 16)

naturally. When they were expecting their first family I started to feed them. I didn't have the heart to see it through.

Last winter my dew worms decided to migrate and I found them dead spread out over the basement floor. My Snakehead had to be rationed so that he would have sufficient food with what was left, so I lowered the temperature to 55 and I found that when he was offered food at this temperature he was not hungry. From December 15th to February 10th, he never ate one single mouthful. I then raised the temperature to 70 then he was ready to eat everything and anything (alive)...So I still don't know how long a fish can go without food.

JANUARY FEBRUARY MARCH APRIL MAY JUNE JULY

THE AQUARIST'S CALENDAR
"The Aquarium"

OCTOBER in many parts of the country, is a "betwixt and between" period. Cold spells are common; also many hot days and cool nights which make it exceedingly difficult for those who are carrying either delicate fishes or some of the more hardy ones. Right at this time is where a good thermostat-heater combination is at its best. Good temperature control means more now than at any other time of year in order to take care of the rapid ups and downs.

October is also the month in which indoor cultures of all kinds of live-foods should be well underway. Micro worms, white worms, drosophila and earthworms are among those most practical. One of the very best investments
(Cont'd page 17)

a hobbyist can make is to start out about four or five 24" x 36" x 8" storage boxes of earthworms. Collect those that are about 3 or 4 inches long. Try to pick up a solid ball of them that would normally fill an ordinary tea-cup. Fill the storage boxes with well sifted garden soil, mix in some finely crushed dry leaves, make the soil moist but not wet, sprinkle some dry oatmeal or a bit of Pablum on the top. Dig a shallow pit and place the worms in it and cover them over. Then put a piece of glass over the box right on top of the soil to keep in the moisture. They will do best at a temperature of about 65 degrees. Feed them more oatmeal or Pablum whenever they clean up that which is on the surface of the soil. A set-up of this kind, by feeding the fishes sparingly on the finely chopped worms, should last nearly all winter and keep a fairly large number of fishes in excellent condition all during the months when Daphnia and mosquito larvae cannot be obtained.

Indoor tanks will now be needing more and more light, not enough to start algae growing, but as the days grow shorter and shorter, enough good artificial light should be added to make up the difference. Although fluorescent lights are considered not quite so beneficial to plant life as the incandescent bulbs, they do create much less heat and the "warm-white" tubes are more effective than the blue-white "daylight" tubes.

AUGUST SEPTEMBER OCTOBER NOVEMBER DECEMBER

Hollywood Star (to Indian): "How do you like our town?"

Redman: "Fine. How do you like our country?"

REMEMBER OUR ADVERTISERS



HAVE YOU

HEARD

THE LATEST?

by Mr L. Whonoseall

...something was wrong at our last meeting... now I know...our cheerful, always a smile, Mrs Flo Trottier was absent. Sorry to hear that our good friend is in hospital. Better get well real soon...

...some old memories were brought back to life at our last meeting when Mr Jack Dirks surprised us with some photo slides of our first and second tropical fish show...

...the Junior Society welcome 8 new members: Joan Peterson; Judy Peterson; Linda Gascon; Murry Cheney; John Thompson; Peter Rail; Gordon Worden; and Graham Conway...the Senior Society welcome Mrs Maria Watson; Mr and Mrs Don Fraser; Mr Douglas Ireland; Miss Suzanne Arbour; Mr and Mrs L. Audette; Mr B.G. Lalonde; Mr and Mrs John Kirkwood and Mr Ken Craig...

...Geo (lucky) Bowie is still trying to figure out why he didn't win the plants ...better ask the President...he drew the tickets...I heard someone say Geo Bowie's tickets were not in the box...

...I am told that Dr Wray Bowden has developed some real Fancy Guppies...

...Don't forget the next meeting...

FACTS FROM HERE AND THERE

Reprinted from the "Colorado Aquarist" The Colorado Aquarium Society, U.S.A.

The Bureau of Fisheries is of the opinion that fish do not sleep in the sense that animals do, since they cannot close their eyes.

A snail's pace by actual measurement is one mile in fourteen days.

ANABLEPS is the only four-eyes fish known. The upper portion looks above water, lower section scans water below.

EELS are real travelers. American and European Eels return to the Sargasso Sea to spawn and die. Young return to their parent's country to mature, finally return to Sargasso, themselves.

EGYPTIAN MOUTHBREEDERS' young return to the mouth of the female to hide for several days after they have been released.

Ever see a CATFISH make a mad dash to the top of the tank for air? Having auxiliary breathing organ in the digestive tract enables them to utilize atmospheric oxygen.

As a substitute for feeding your fish the GORDON FORMULA, try Heinz Baby Liver. It is about the same consistency as the Gordon Formula, and fish really go for it, and seem to thrive on it. Be sure you get the plain liver and liver broth - not Liver and Bacon.

Did you know that some fish, such as those of the Cyprinidae family (Rasboras, Barbs, Danios, etc.) do not have any jaw teeth, but have in their throats a set of teeth which they use to crush their food?

Did you know that the Editor of this magazine is waiting for your article?



O V A S

JUNIOR SOCIETY
SECTION

Editor:
Joe Marshall

PRESIDENT'S LETTER
Junior Society

Due to the recent resignation of Mr Pieter van der Brugh, The Junior Society is presently without a Director. We would like to thank Mr van der Brugh for all he has done for the Junior Society and hope that he has every success in his new Government position. Until a new Director is appointed, Mr Harvey Wittenberg will carry out the duties.

The membership is now 44 and I hope we can reach 50 by the end of the year. If you know of anyone interested in tropical fish, please bring them to the next meeting.

For the benefit of new members, a letter is being prepared containing general information about the Society. This will be sent out shortly and will, I hope, answer some of the questions you might have.

If there is any change in your address, the Membership Director, Andrew Carson, should be informed as soon as possible.

Gary Zumar
Gary Zumar

A T T E N T I O N

PLEASE NOTE THE FOLLOWING CHANGES IN OUR REGULAR MEETINGS FOR NOVEMBER AND DECEMBER:

NOVEMBER 13TH - 2ND THURSDAY

and

DECEMBER 4TH - 1ST THURSDAY

SHELTER IN YOUR AQUARIUM

by Dale Fletcher, Reprinted from "Tank Talk", Midwestern Aquarist Club, U.S.A.

When speaking of security, I refer to a fishes well being as a pet and a show piece. On the other hand, shelter I refer to, is his relationship to other fishes, and his ability to survive with his own kind.

Unavoidably it seems, nearly all aquariums have a bully or two and the smaller or weaker fishes take a certain amount of abuse from these tyrants. So here we use the well planted aquarium to provide security, and as a water tester; and now to provide adequate shelter to smaller and less aggressive fishes.

Some species of fish are more pugnacious than others, while some are less and still others are ideal in any aquarium. But there are exceptions in any fish irregardless of his nature. I think perhaps the biggest of all, is jealousy. This seems to be true in any form of life on God's Green Earth, and even though a great wrong, it promises to go on so.

Even peaceful varieties of fish are

(Cont'd page 22)

jealous of a rival and will compete for the affections of the opposite sex. Unfortunately there is always a loser, and he or she takes the abuse of the stronger or sometimes larger fish. Once conquered the abuse continues until usually death is the result. If not directly from body bruises or wounds, sometimes disease sets in and takes it's toll. Still another way, the fish is forced away from the food supply and it eventually wastes away.

In order to prevent this, we must take definite steps to preserve our pets and come as close to neutrality as possible. The best way (except for separating fish) is to provide ample shelter so the abused may hide from it's aggressor. Except for a few encounters with his enemy, he may live a peaceful life and mind his own business. I should like to say this as a guide to eliminating these problems as much as we can.

First of all, be sure of the fish you buy for community aquariums. Make sure they are peaceful species and recommended as such by our well known ichthyologists. Try to keep the sizes of all species as close to each other as possible. Don't overcrowd your aquarium, especially smaller ones. If you prefer more hearty and pugnacious fishes, keep them with others of the same characteristics and by following the above rules as closely as possible, I believe success will come to your community aquarium. Actually this is just good common sense to well management of an aquarium and I am sure you could tell me a thing or two.

In summing up, we must remember plants are an asset in many ways to our fishes. The one we are talking of now is to provide plants for shelter of smaller and less aggressive fishes. This will prevent

(Cont'd page 23)

losses of favorites, and help us to enjoy a secure, beautiful, harmonious aquatic scene in our home.

THE LIQUID ATMOSPHERE

by Cam Langford - The Canadian Aquaria

It's a good thing, for the fish at least, that the "Never Change The Water In Your Tank" school is rapidly disappearing from the scene. Today, most advanced aquarists agree, almost to a man, that regular, small changes of water are beneficial to both fish and plants.

The major problem still rests with the quality of the water itself, and the common misconceptions about what might be called "water Chemistry". Without becoming too technical, I should like to explain certain factors in the hope that the ideas put forth will lead to healthier fish and plants ...and happier hobbyists.

There are two words... "Hard" and "Soft" ...that are terribly misused by the aquarist. "Hard" water is that which contains certain dissolved mineral salts (calcium and magnesium compounds) that prevent soap from lathering easily. Toronto water runs from 9 to 25 grains per gallon and is thus classed as very hard...but note...this amount represents the calcium and magnesium salts only...not the total dissolved minerals in the water.

A saturated solution of common salt (sodium chloride) would be sure death for any fish or plant, but it would still have to be classed as soft water because it contains no hardness salts. Hence let me do away with the words "hard" and "soft", and

(Cont'd page 24)

use "total dissolved minerals" in their place. It is a much more accurate term.

In the control of the total mineral content of water may lie the answer to some of the problems that baffle and frustrate the hobbyist. Since there are so many sources of water available, let us consider each of them and their properties.

RAIN WATER: as it falls from the sky, is essentially pure, containing only dissolved gasses from the air and such dust and dirt as it will pick up on the way down. The water falling near the end of a rainstorm is nearly pure. However, city rainwater is invariably polluted with heavy concentrations of industrial smoke and gasses.

RIVER WATER: is variable. If the river runs over rocks with a highly soluble mineral content e.g. limestone, it will be hard. Granite, basalt or silt river beds give us river water with fewer dissolved minerals.

LAKE WATER: is essentially the same composition as the rivers that feed it, but with slow currents and a high rate of evaporation, the total dissolved minerals are concentrated, giving a higher mineral content per gallon.

WELL WATER: almost invariably has a very high mineral content. Wells deliver water with anywhere from 20 to 100 grains of calcium salts dissolved in every gallon.

GROUND WATER: if fresh, is probably similar to the rain water it was formed from. If old, it will have had time to pick up minerals and concentrate them by evaporation.

TAP WATER: is purified by the Civic Water Works to remove dirt, sediment, polluting chemicals and dangerous organisms. Dissolved minerals are usually not removed. Tap water may come from rivers, lakes or wells...or a combination of all three.

DISTILLED WATER: contains practically no minerals. It is produced by condensing vapor and steam from boiling water. Since dissolved minerals do not boil away in the original solution, only pure water vapor is released to be condensed.

SOFTENED WATER: is usually produced by passing tap water through a bed of synthetic resin that takes all calcium and magnesium out of the solution and replaces it with sodium. Softening water does not reduce the total dissolved mineral content...it simply causes a permanent change in the types of dissolved mineral salts. Chemically "softening" water (washing soda, etc.), is useless to the aquarist.

BOILED WATER: Boiling caused certain "Hardness" salts to precipitate thereby leaving the water "softer", but at the same time, the remaining mineral salts are concentrated by the boiling-off of water vapor.

DEMINERALIZED WATER: is essentially the same as distilled water. Synthetic resins of different types are used in combination to break down and then remove the various mineral salts.

In considering these sources, city rain water, river water and ground water may all be polluted or contain organisms dangerous to fish.

Boiled water and well water usually have much too high a mineral content. Distilled water and demineralized water do not

support life well, although they are pure.

Tap water is the major source of supply for most hobbyists. But in areas which, like Toronto, have a high proportion of dissolved minerals in the water problems arise. Even softening the water seems to help but little, since the total mineral content remains the same.

Most fish adapt quite well to water with a high mineral content, but many plants will not thrive and reproduce. Cryptocorynes do best in acid conditions with little dissolved mineral in the water.

The Amazon Sword plants prefer alkaline conditions but do not take well to a high mineral concentration. Such beauties as Madagascar Lace Plants must have water with a very low mineral content.

There are two possible answers to this problem. One is to collect rain water in the northern parts of the province. Any aquarist who does this will vouch for the excellent results he gets from his plants. But there are many who find this impossible. For them, there is a second road...mixing demineralized or distilled water with tap water to obtain the correct total dissolved mineral content.

For example, if the water in your area registers ten grains on the hardness scale, a fifty-fifty mixture of demineralized and tap water will drop the reading to five grains per gallon.

If the water comes from wells and measures 20 grains per gallon, a three-to-one mixture will give the five grain result.

I am not suggesting that this is a solution to the "hard-water" problem. But it may be a trail towards giving our plants and fish the best possible conditions under which to grow and reproduce.

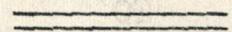
We cannot hope to duplicate the con-

(Cont'd page 27)

ditions under which aquatic organisms thrive in their natural habitat...but we can try to create the optimum conditions for them in our tanks. I cannot help but feel that the water...the plants and fish's liquid atmosphere...is the starting point for a great deal of research and experimentation.

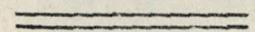
There is at least one case that backs up these observations. In our recent Canadian National Exhibition show, nearly every member who used a mixture of distilled water and tap water in their tanks was delighted at the excellent plant growth they obtained.

The important thing now is to try the same mixture in your tanks at home...let the Society know of the results.



From "Water Lines", St.Louis Junior Aquarium Society, U.S.A.

Have you ever tried spinach as a fish food? It seems to be especially beneficial to the livebearers. Preparation is simple: Fresh spinach is brought to a slow boil and cooked just enough to kill and tenderize it. Salt is not used in the cooking. We see no reason why this food could not be purchased in some other form, however, and fed directly to the fish. Be sure that any prepared form you use has no grease in it. Feed it only as a supplement - a couple of leaves daily. Remove uneaten parts the following day. We have seen some really beautiful tank raised mollies which were raised on a diet consisting of spinach, brine shrimp, and assorted dried foods only. Mollies which are raised on these foods do not seem to have shimmies nearly as badly as others.



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TO

YOUR

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MAGAZINE?

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