



THE FILTER

TBAS . . . Since 1992

April 2017
Volume 26 Issue 9



Aulonocara sp. Firefish
Dragon Blood Peacock

Photo Mike Jacobs . . . 2016

April Meeting
Several "Fishy"
Presentations

March Bowl Show
1) Platies
2) Guppies



TAMPA BAY AQUARIUM SOCIETY

"THE FILTER"

Tampa/St. Pete, Florida

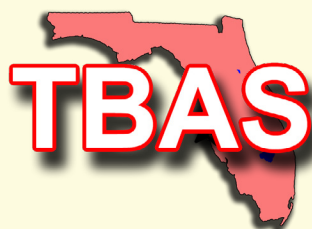


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President's Dharmesh Patel Stuff

Hello Friends!

Our April meeting will be a bit different. We will have a couple study groups! It will definitely be a fun way to discuss ideas with some of our local experts and peers. There is always something to be learned in our hobby. Sometimes with the internet, there can be too much misinformation and we can lose sight of “tried and true” methods. I am looking forward to hearing some knowledge.

April's Bowl Show:

- 1) Platies
- 2) Guppies
- 3) Favorite Egglayer

May brings our Annual Swap Meet. This is always a great time to socialize with our TBAS friends, sell a few things or buy a few things. Please pre-register with me by sending an email to dharmeshspatel78@hotmail.com. Space is limited. \$20.00 for non-members. 1 free table to members with additional tables costing \$5.00. Remember there is no bowl show that night or guest speaker.

See you at our next meeting!



Dharmesh

Dharmesh Patel, President, TBAS

**Betta . . . Koi
Plakat Male**



by
Joe Gargas

Confusing Terms

Recently, while reading a column by a noted author in a popular aquarium magazine, I came across an incorrect statement that could cause quite a bit of confusion. It was a question-and-answer column where a reader questioned the author about a species of fish from Lake Tanganyika . . . one of the large rift lakes.

The species in question was *Julidochromis transcriptus*, a variety of African dwarf cichlid. The reader went on to ask what the best conditions (i.e. water chemistry) were for keeping this interesting species of fish.

The writer responded, "... these fish require hard, alkaline water to prosper. A pH range of 7.5 to 8.5 is acceptable, and the water hardness in the tank should be at least five degrees carbonate hardness (dKH)."

The problem I have with this is that the writer does not differentiate between carbonate hardness and hardness. Let's look at some definitions: Carbonate hardness means only one thing, and that is alkalinity, which is the measure of the capacity of water to neutralize strong acid. In natural water, the major alkalinity component is the hydrogen carbonate ion.

On the other hand; hardness is the sum of the divalent cations, chiefly calcium and magnesium. There is a big difference between the two; the author did not differentiate between alkalinity and hardness. This is a common occurrence in the hobby that leads to confusion among hobbyists and breeders.

The term "carbonate hardness" is used quite a bit. First of all, carbonates are not present if the pH is below 9, and the buffer will be bicarbonate. In essence, the hardness is not measured at all, only the alkalinity.

DKH is a measurement in degrees on a German scale for water

parameters. To convert degrees to parts per million, or more correctly, milligrams per liter, each dKH or degree is multiplied by 17.8. Therefore, $17.8 \times 5 = 89$ parts per million; or more correctly, 89 milligrams per liter. In this case, the alkalinity was 89 ppm.

For the species of fish mentioned, I would recommend the alkalinity to be maintained at 120 parts per million or more. This can be achieved by adding any of the products that increase pH. The author of the column did not speak about the hardness requirement for this species at all. I would like to see this species kept in a hardness of 250 parts per million or more.

TOTAL HARDNESS

Since hardness is often misunderstood as it was in the column I read, I will briefly attempt to explain it in layman's terms. First of all, total hardness can vary depending upon the origin of the water. Very hard water, exceeding 350 ppm total hardness, comes from limestone, chalk, gypsum or dolomite regions.

The well water that we use in our lab has hardness exceeding 800 parts per million. (One of these months I'll tell you how we treat it and what is involved in doing so.) One will find very soft water with only 20 to 40 parts per million total hardness in areas with basalt, granite, gneiss or sandstone.

Very soft water that is less than 20 parts per million is found in the tropical rain forests. But, by no means are all tropical waters soft. There are also chalk regions in the tropics with water in excess of 350 parts per million total hardness.

The term "total hardness" is sometimes designated as the sum of all the so-called "earth" ions that are dissolved in the water. Primary among these are calcium and magnesium ions, while strontium and barium ions are generally only present in trace quantities.

CALCIUM & MAGNESIUM

Most of the time, natural calcium and magnesium comprise the bulk of the cations, which can be 80 percent more or less, depending on the water source. (A little shortcut to keep in mind is that any mineral that ends in "ium," is a cation.) The total hardness provides a good estimate of conductivity.

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Calcium is essential for fish in building their bony skeletons. Snails and mussels also require it for their shells. In addition to this, calcium plays an important role in cell wall formation, cellular division, in the nervous system, and finally, throughout the entire organism.

Plants require only very small amounts of calcium. That's why they are hard to keep in harder waters. Even in soft water, signs of calcium deficiency among aquarium plants are unknown.

Magnesium is only required by animals as a trace element. It activates sugar synthesis, and it can influence the excitability of nerves and muscles. Magnesium is most essential for plants. It activates the fundamentally important citric acid cycle, among other things, and it exists as the central atom in chlorophyll, the life essential green coloring of leaves. Water plants often thrive better in soft water than in hard water.

We are fortunate to have multitudes of resources in our aquatic industry. One can walk into any pet store and purchase a number of kits to determine the alkalinity, pH and total hardness.

I would recommend that the hardness kit that is purchased should be able to measure calcium hardness, so that magnesium hardness can be determined by subtracting the calcium hardness result from the total hardness.

Just remember that pH, alkalinity and hardness are different and they mean different things.

Aqua Research Center

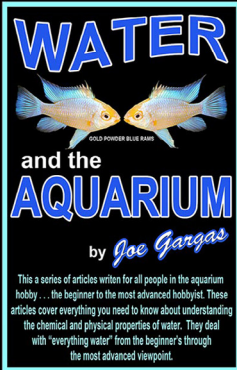
Water Analysis & Interpretation by Joe Gargas

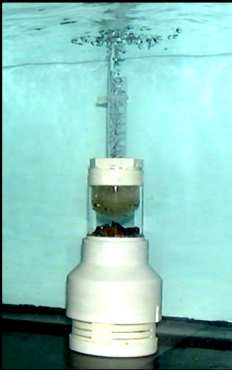
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www.aquaresearchcenter.com

TBAS SWAP MEET

Monday, May 8, 2017

... just like the last 2 years:
At the upcoming May meeting
7:30pm - Close!

TBAS Members get a FREE table
ONLY if they **PRE-REGISTER**
Contact Dharmesh Patel to register:
dharmeshspatel78@hotmail.com

There will only be 20 Total Tables available
EVERYONE ... members or not are welcome
to come and buy or sell! Non-members will
pay \$5.00 for a table.

Directions to Meeting:

www.tbas1.com/TBASpages/directions.html

TBAS FaceBook:

www.facebook.com/tampabayaquariumsociety



One of the biggest problems that new and old fish keepers have is getting their fish to get along, even when they are only keeping one species. To complicate matters what works for one person may not work for someone else. Tank Size, the habitat, food and water quality are all factors in fish compatibility. But, sometimes you will run into a fish that does not fit its profile. This can be caused by inbreeding, poor nutrition during egg development or a number of other factors. These fish can be either big bruisers or real wimps, but these are exceptions to the rule.

There are many books that try to give compatibility guides but they often all short. Here are some simple rules that you can follow that will help you select the right kind of fish so your tank will be a more "peaceful" place.

The first thing you need to know is how big the fish will get. Hopefully your fish store will have books you can look at (if they don't have any reference material, I would worry about buying any fish at that store). Once you know how big the fish will become, then you will know if you have the right-sized tank for it and any tank mates of similar size you might want to put with it. **NO! FISH DO NOT GROW TO THE SIZE OF THE TANK!** This is the biggest fallacy in the hobby and if someone tells you that, they don't know what they are talking about! A fish's mouth size will tell you a lot too . . . big mouth predators should not be kept with small fish. Large fish with small mouths can be kept with smaller fish.

The next thing you need to know are the water requirements. Do you need hard or soft water, warm or cold? Maybe this fish needs a higher pH or lower pH. You can't mix fish that have very different water requirements because it is inevitable that someone will be unhappy.

Does the fish need to be in schools, pairs, harems or alone? What if you purchase barbs? They like schools and are very unhappy in pairs and will nip and pick at each other and other fish unless kept in groups of six or more. Perhaps your male won't get along with a single female but needs a harem. These are things you must consider.

Food is not something that many people think of when considering compatibility, but take, for example, the seahorse. Seahorse and related pipefish eat only live food and eat it very slowly. Most fish you keep with them will eat all the food before they get a chance, even though they won't harm the seahorses. Don't mix vegetable-eaters with live plant tanks. Many fish have special food requirements so keep this in mind when mixing different kinds of fish.

Activity level and habitat go together. Active fish need swimming room and many sedate fish need hiding places. Often the very active fish will make slower fish nervous, but sometimes they are used with more aggressive fish to distract them from fighting with each other. And what do YOU want? Do you like fish darting and flashing about or more sedate, slow movers? Some predators are sedate until food goes by. Don't let that fool you. Be sure they fit the other rules too.

This article is meant to provide some guidelines and just because the fish you pick match all rules doesn't mean they will all get along. Sometimes you have to change the tank around or add more fish for distraction or add more habitats. There will always be exceptions to the rule and remember each fish has its own personality. Until next month, keep those fish happy.





A.K.A. Convention 2017

May 26th – 28th

Crowne Plaza - Chicago Northbrook
2875 N. Milwaukee Avenue
Northbrook, IL 60062



Dalton Nielsen

Brazil

Collecting and Maintaining
the Killifish of Brazil



Jan Willem Hoetmer

The Netherlands

Collecting and Raising Killifish



Jack Heller

Rainy Season Collecting Trip
to the Peruvian Amazon



Ron Harlan

Collecting Killifish in Bolivia



Richard Pierce

Killifish of Madagascar

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Saturday Morning Killifish Sale

Saturday Evening Banquet and Awards Program

Giant Sunday Auction with hundreds of pairs of killifish
available including many rare and seldom seen species



For more information email: convention@aka.org,
watch our web site or follow us on Facebook

www.aka.org

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***Pseudancistrus asurini* . . . L-67**

photo: Mike Jacobs 2017

MONTHLY BOWL SHOW

January

- 1)
- 2) **None - Plant Auction**

February

- 1) Male Betta Splenden
(single fish)
- 2) Open

March

- 1) Tetras, Barbs, Rasbora
- 2) Cichlids

April

- 1) Platies
- 2) Guppies

May

No Bowl Show
Swap Meet

June

- 1) Corydoras
- 2) Anabantoids no Bettas

July

- 1) Arts & Crafts (hand made)
- 2) Fish "T" Shirt (must be worn)
- 3) Aquatic Photos
(personally taken)

August

- 1) Mollies
- 2) Rainbows

September

- 1) Swordtails
- 2) Pleco/Sucker type fish

October

- 1) Dwarf Cichlids
- 2) Angelfish

November

- 1) Goldfish & Koi
- 2) Invertebrates (Fresh or Salt)

December

No Bowl Show . . . Christmas
Party and the
2016 Results of the Bowl Show!!!



Bowl Show Results

2017

by AL

NAME	JAN-FEB	MARCH	TOTAL
Ethan Skidmore	5	20	25
Kent Sheets	14	0	14
Elaine Thyner	6	0	6
Missina Rurcaw	5	0	5
Danielle Lee	4	0	4
Grant Eder	1	0	1



Nothobranchius rachovii 'Beira 98'



Suncoast Killifish Society, Florida
AKA Convention 2000, AKA Convention 2006

<http://www.sks.aka.org>

Did you ever think of KILLIFISH???

Come find out about them at the SKS meetings!!! See the ad to the left!



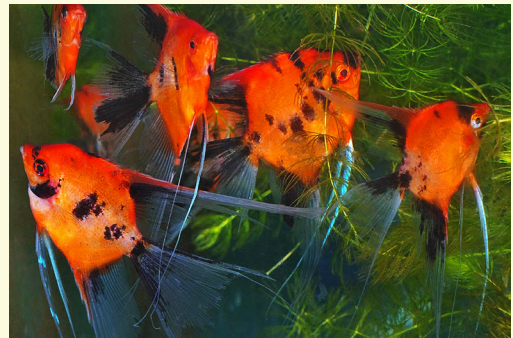
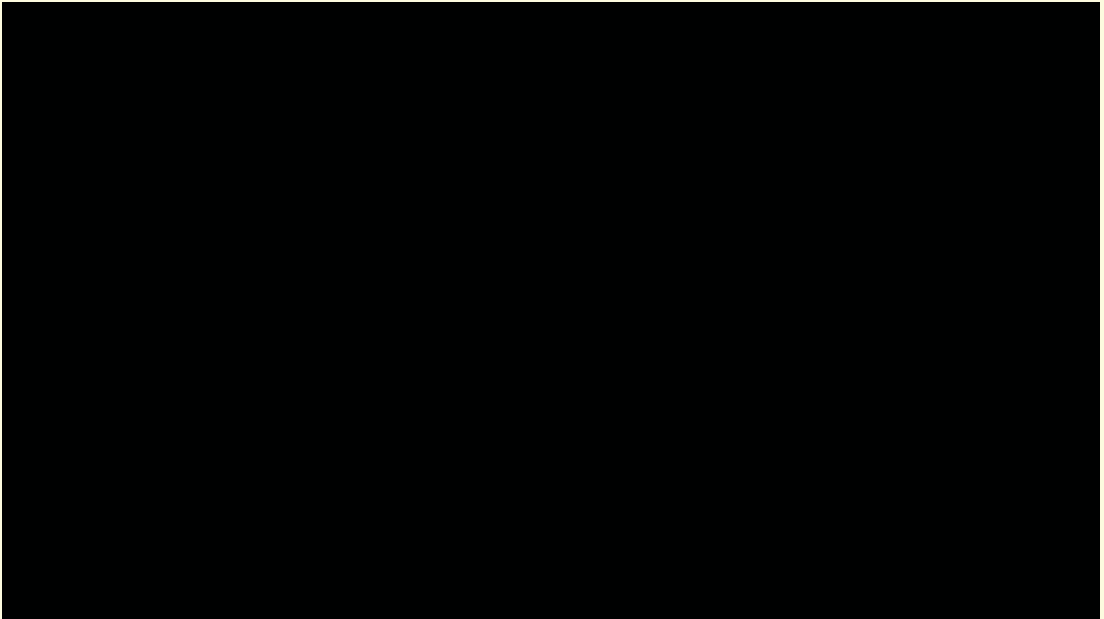
**Coastal
Aquarium
Society**

Coastal meets on the 1st Wednesday of every month on the campus of New College in Sarasota Florida . . . come and spend an evening with us!

<http://coastalaquariumsociety.com>

You won't be sorry you came!

Directions are on the website.



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MEMBERSHIP DUES!!!!



Membership Dues for TBAS are due on the anniversary of your sign-up date every year. Please make sure you check the “sign-in” list on the table at every meeting to check your “Dues-Date” . . . Thanks!!!

USE PAYPAL ON THE TBAS WEBSITE . . . TBAS1.COM . . . !!!!!

TAMPA BAY AQUARIUM SOCIETY

OFFICERS



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Dharmesh Patel



V. PRESIDENT
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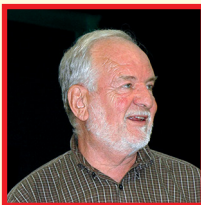


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