

modern AQUARIUM



July 2015
volume XXII
number 5

Greater City Aquarium Society - New York



347.732.0373

monsteraquarium@hotmail.com

131-08 40th Rd., Flushing, NY 11354

長江水族館

MONSTER AQUARIUM INC.

CARRIES IMPORTED EXOTIC FISH, SPECIAL ORDER,
FILTER REPAIRS, SET UP & MAINTENANCE (FRESHWATER ONLY).



專營：

- 各國熱帶觀賞魚類 • 水草 • 孔雀 • 埃及仙
- 七彩 • 斗魚 • 慈鯛 • 短鯛 • 河豚 • 鯰魚
- 異形 • 古代魚 • 鼠魚 • 魮魚 • 燈魚 • 花羅漢

另有各式水族器材用品



歡迎參觀 七天營業

Open 7 Days • 10am-8pm

347.732.0373

monsteraquarium@hotmail.com

131-08 40th Road, Flushing, NY 11354

BJ's / Skyview Mall 天景豪苑旁



modern AQUARIUM

Series III Vol. XXII, No. 5 July, 2015

ON THE COVER

Our cover this month features *Xiphophorus variatus*, the variegated platy. A longtime favorite in the aquarium hobby, I'm sure most of us have kept these attractive and peaceful fish at one time or another. For more information on this deservedly popular livebearer, see Susan Priest's article on page 9.

Photo by Susan Priest

GREATER CITY AQUARIUM SOCIETY

BOARD MEMBERS

President.....Dan Radebaugh
Vice-President.....Edward Vukich
Treasurer.....Jules Birnbaum
Assistant Treasurer.....Ron Wiesenfeld
Corresponding Secretary.....Sean Cunningham
Recording Secretary.....Tommy Chang

MEMBERS AT LARGE

Pete D'Orio.....Al Grusell
Ben Haus.....Emma Haus
Jason Kerner.....Leonard Ramroop

COMMITTEE CHAIRS

Bowl Show.....Leonard Ramroop
Breeder Award.....Warren Feuer
Mark Soberman
Early Arrivals.....Al Grusell
F.A.A.S. Delegate.....Alexander A. Priest
Membership.....Marsha Radebaugh
N.E.C. Delegate.....Joe Gurrado
Programs.....Mark Soberman
Social Media.....Sharon Barnett
Technology Coordinator.....Warren Feuer

MODERN AQUARIUM

Editor in Chief.....Dan Radebaugh
Copy Editors.....Sharon Barnett
Susan Priest
Alexander A. Priest
Exchange Editors.....Stephen Sica
Donna Sosna Sica

In This Issue

From the Editor.....	2
G.C.A.S. 2015 Program Schedule.....	3
President's Message.....	4
June's Caption Contest Winner.....	5
<i>Pterophylum scalare</i>	6
by Tommy Chang	
Cartoon Caption Contest.....	7
For the Love of Variatus.....	9
by Susan Priest	
Wet Leaves.....	11
Aquarium Care of Livebearers.....	11
by Susan Priest	
Fishy Friends' Photos.....	13
I Still Like Duckweed!.....	14
<i>Lemna minor</i>	14
by Stephen Sica	
Pictures From Our Last Meeting.....	16
by Susan Priest	
Our Youngest Winner.....	18
Dr. Louis Agassiz.....	19
The Names You Know, the People You Don't.....	19
by Derek P.S. Tustin	
G.C.A.S. Classifieds.....	22
Our Generous Sponsors and Advertisers.....	22
An Aquarist's Journey.....	23
Chapter 15.....	23
by Rosario LaCorte	
What's the Difference?.....	28
by Horst Gerber	
G.C.A.S. Member Discounts.....	29
G.C.A.S. Happenings.....	32
The Undergravel Reporter.....	33
True Blue Watercolors.....	33
Fin Fun (Puzzle Page).....	34
Know Thy Cory!	

From the Editor

by Dan Radebaugh

I like this issue! Not that I haven't liked others of course, but this one just sort of came together unexpectedly well, is a little different, and offers something for nearly everyone. There's even a poem!

Susan Priest's article on platies threw me back to my youth. The first fishes that I kept successfully were goldfish and some corydoras in an outdoor pond. I ultimately brought those inside when the pond became no longer available. One of my sisters had mentioned to her junior high school art teacher that we had an aquarium, and the teacher offered her some surplus platies (and maybe some guppies as well, though I'm not certain about the origin of the guppies). Anyway, the platies were a delight to keep! They're large and colorful enough to be seen from a distance, friendly to all, easy to feed, not fussy about water parameters, and readily reproduce! What's not to like? You do have to use some judgement about tankmates. I had to move my betta to solitary confinement after he killed a few platies, for instance. Anyway, these are fish that I like a lot, though I haven't kept any since those days, and it's nice to read an article about them. Synergistically, Sue then follows up with a glowing Wet Leaves review of Dr. Ted Colletti's book, **Aquarium Care of Livebearers**.

In the same aquarium I mentioned above, I also from time to time tried to keep duckweed, along with other floating plants intended to shelter platy fry. I sort of liked the *idea* of duckweed, but the reality just never seemed to live up to the concept, so I knowingly nod my head when reading Steve Sica's "I Still Like Duckweed," though I must say that his photos show more success than I had with this plant. I never caught them at it, but maybe my goldfish were eating it.

We also have some fish hobby history—from two different centuries, no less! Three, if you count Pictures From Our Last Meeting as history. The first is a piece by Derek Tustin, reprinted from the Durham Regional Aquarium Society's publication, **Tank Talk**, on Dr. Louis Agassiz. I'm sure most of us have seen fish bearing his name in their Latin binomial; this piece tells us about the man as well. The second is Chapter 15 of our ongoing autobiography of Rosario LaCorte. I'm sure you'll enjoy both!

The Undergravel Reporter celebrates Independence Day by introducing us to a red, white, and blue crayfish, while our Fin Fun puzzle takes note of the subject of this evening's speaker, Mark Soberman. You'll also come across a couple of bonus surprises that I'll let you find by yourselves.



* * * * *

Remember, we need articles. We *always* need articles! **Modern Aquarium** is produced by and for the members of Greater City Aquarium Society. Our members are our authors, and with ten issues per year, we always, always need more articles. I know several of you are keeping and/or breeding fish, or working with plants or invertebrates that I would like to know more about, and I'm certain other members would be interested as well. Share your experience with us. Write about it! If you're a little unsure about the state of your writing technique, don't worry – that's why there are editors. If you don't share what you know, who will?

If you have an article, photo, or drawing that you'd like to submit for inclusion in *Modern Aquarium*, it's easy to do! You may email it to gcas@earthlink.net, fax it to me at (877) 299-0522, or just hand it to me at a meeting. However you get it to me I'll be delighted to receive it!





GCAS Programs 2015

It is our great fortune to have another admirable cast of speakers who have so graciously accepted our invitation to join us throughout the coming season, bringing us their extensive knowledge and experiences. You certainly won't wish to miss a moment of our prominent guests, not to mention the friends, fish, warmth, and camaraderie that accompanies each meeting.

March 4	Joseph Ferdenzi <i>A Beginner's Guide to Aquarium Equipment</i>
April 1	Jules Birnbaum <i>The Building of a Dream</i>
May 6	Richard Pierce <i>Seahorses, Seadragons, and Pipefish</i>
June 3	Jeffrey Bollbach <i>How to Get Rich Breeding Fish: My Obsession with Aquabid</i>
July 1	Mark Soberman <i>Keeping and Breeding Corydoras Catfish</i>
August 5	Silent Auction
September 2	Tom Keegan <i>How Fish Get Here, There, and Almost Anywhere</i>
October 7	Steve Lundblad TBA
November 4	TBA
December 2	Holiday Party!

Articles submitted for consideration in **Modern Aquarium** (ISSN 2150-0940) must be received no later than the 10th day of the month prior to the month of publication. Please email submissions to gcas@earthlink.net, or fax to (877) 299-0522. Copyright 2015 by the Greater City Aquarium Society Inc., a not-for-profit New York State corporation. All rights reserved. Not-for-profit aquarium societies are hereby granted permission to reproduce articles and illustrations from this publication, **unless the article indicates that the copyrights have been retained by the author**, and provided reprints indicate source, and that two copies of the publication are sent to the Exchange Editor of this magazine. For online-only publications, copies may be sent via email to donnste@aol.com. Any other reproduction or commercial use of the material in this publication is prohibited without prior express written permission.

The Greater City Aquarium Society meets every month, except January and February. Members receive notice of meetings in the mail. For more information, contact: Dan Radebaugh (718) 458-8437 or email gcas@earthlink.net. Find out more, see previous issues, or leave us a message at our Internet Home Page: <http://www.greatercity.org> or <http://www.greatercity.com>.

President's Message

by Dan Radebaugh

Dear Members and Guests:

The QBG has asked that we remind everyone of the following:

- **Parking** is available in the small parking lot, against the fence **only**. Please do not park anywhere else in the lot. Spaces are limited, so if you must park in the lot, please arrive early to ensure availability. If there are no approved spaces available, additional parking is available on the street.
- **The Meeting Room:** Please be considerate of the property. If you spill something, please clean it up!
- **Schedule:** We have use of the room until 10:00 PM, after which setup for the next day's program begins. We've been pushing that 10 PM finishing time quite a bit. To help meet that time requirement, we'll need to get the meeting rolling a little closer to our scheduled 7:30 PM starting time. I know many of you are bringing numerous auction items, which of course is great! However, let's all try to get our items catalogued and set up early enough to begin the meeting on time.

Here are a few other general points of etiquette that may help the meeting move along more smoothly, as well as continue to make our meetings the great experience that they have been:

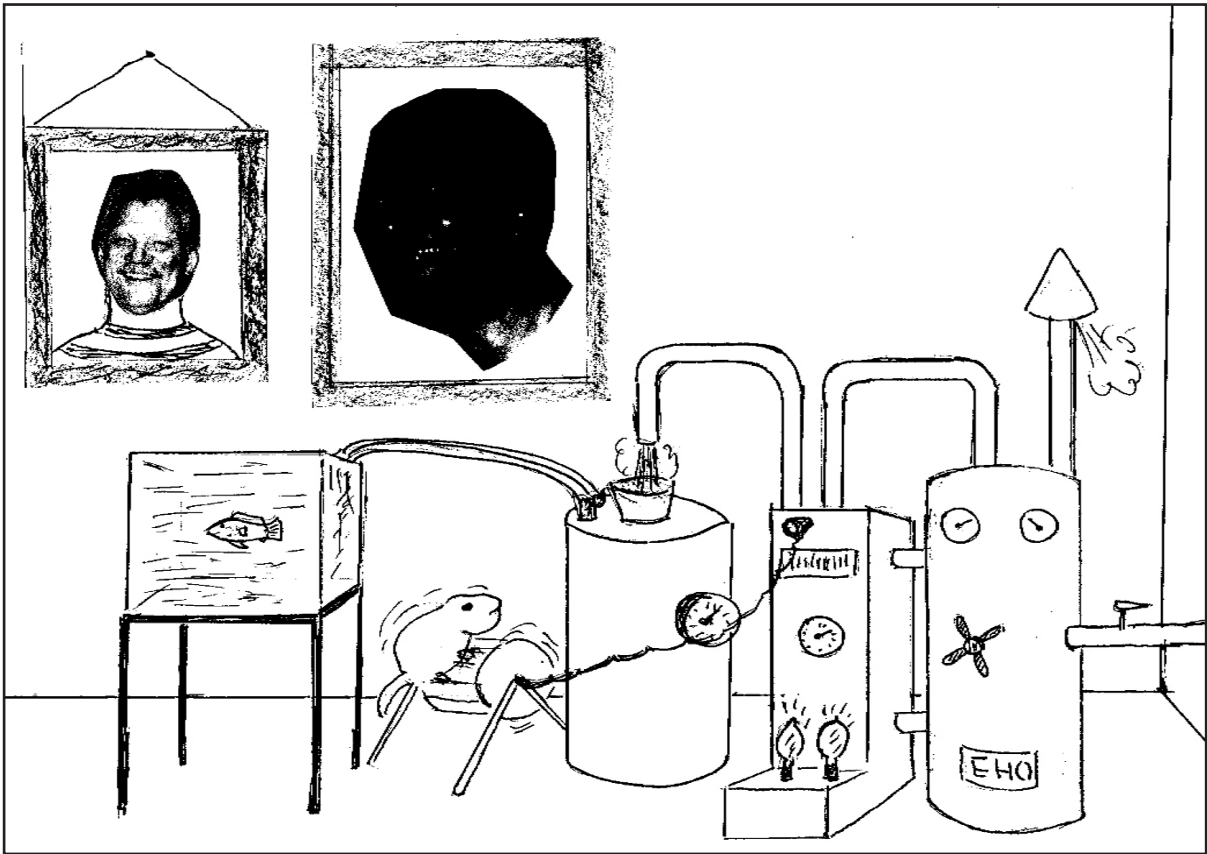
- **AUCTION TABLE:** Please do not block access to the auction tables by those who need to place items there. And please *leave* the auction table area once the meeting begins. You will have another opportunity during the break to check out what's there. Also, once the auction begins, please leave this area clear so the runners can have unimpeded access to the items.
- **SEATING:** Although our increasing attendance has made seating a little tighter, there are usually enough chairs for everyone. Don't be shy about squeezing in front of people to get to a chair (but please do so quietly once the speaker's program has begun). And if we don't keep packages on the chairs or leave gaps in the row, more people could be easily and comfortably accommodated.
- **NOISE:** If you need to engage in conversation during the speaker's presentation, or during the auction, please do so in the coffee area, in a low voice. The acoustics in our meeting room are such that voices carry even at a whisper. You may believe that because you're at the back of the room, or you are whispering, that you can't be heard, but I promise you, you can! And add your conversation to those of others, and the room becomes a cacophony, making it a struggle for the speaker or the auctioneer to be heard, and of course it delays progress of the auction or raffle drawing to have to stop and quiet the room.

All of these requests and suggestions are intended to keep our meetings as enjoyable as possible for everyone, and to preserve our good relationship with the venue. Your cooperation will help everyone continue to enjoy participating in our meetings each month.

Dan



June's Caption Winner: Susan Priest



Ed's First Python

NEED COMPUTER HELP?

Virus/Spyware Removal \$79.00*

Wireless Setup \$49.00**

Optimization Special \$39.00*

Test Hard Drive and Memory
Eliminate Windows build-up
Remove Internet activity and accumulation
Accelerate Windows start-up



All Work Guaranteed
Professional, Friendly Service
On-Site Service in Your Home,
Office or Business

CompTIA® A+ Certified

Repairs & Upgrades • DSL & Cable Modems Installed • Home & Office Networking
Wireless Networks Installed • Computer & Peripherals Set Up • Troubleshooting & Optimization
Virus & Spyware Removal Specialist • Data Recovery • One-on-One Training

* \$15.00 Mobile charge
** Labor only. Equipment additional

Call: 718-469-5444 • jasontech1@verizon.net

Pterophylum Scalare

by Tommy Chang



Majestic Freshwater Angelfish
dactylic rhythm for movement
through the water
invisible eddies from your powerful fins

Majestic Angelfish
saccades could not outwith the
stillness of your momentary stance
frozen in time

Majestic Angelfish
in flight, soaring through water
like an ancient pterodactyl above us
angel in a fish tank



CAMEO PET SHOP

TROPICAL FISH AQUARIUM

Specializing in Tropical Fish and Aquarium Supplies

Large Selection of Aquatic Plants

Knowledgeable Staff

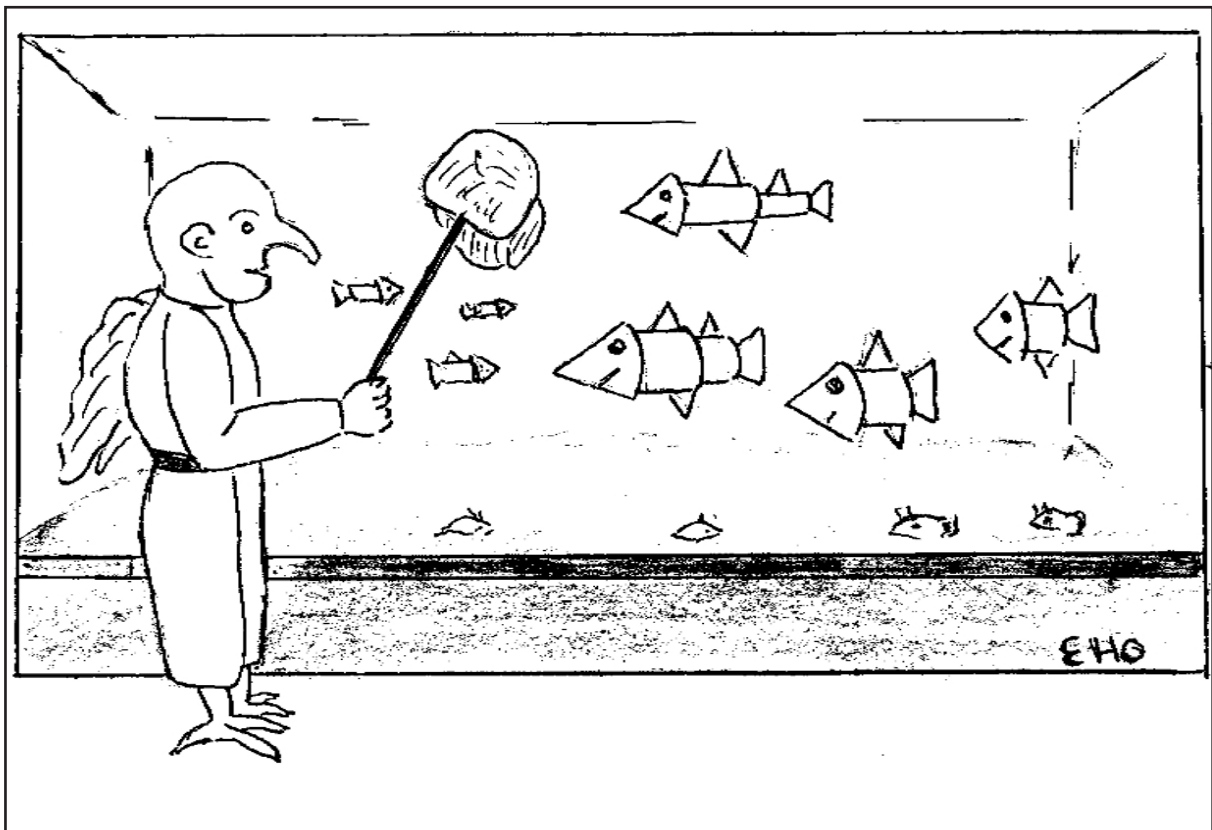
Same Location Since 1947.

(718) 849-6678

115-23 Jamaica Avenue
Richmond Hill, NY 11418

The Modern Aquarium Cartoon Caption Contest

Modern Aquarium has featured cartoons before. This time though, you, the members of Greater City get to choose the caption! Just think of a good caption, then mail, email, or phone the Editor with your caption (phone: 347-866-1107, fax: 877-299-0522, email: gcas@earthlink.net). Your caption needs to reach the Editor by the third Wednesday of this month. We'll also hand out copies of this page at the meeting, which you can turn in to Marsha before leaving. Winning captions will earn ten points in our Author Awards program, qualifying you for participation in our special "Authors Only" raffle at our Holiday Party and Banquet. Put on your thinking caps!



Your Caption:

Your Name:



BOWL SHOW RULES

There is a Bowl Show at every GCAS meeting, except our Silent Auction/fleamarket meeting (August) and our Holiday Party and Awards Banquet meeting (December). These shows are open to all members of GCAS. Rules are as follows:

- Only current GCAS members may enter fish in the Bowl Show.
- There is a limit of 2 entries per member per meeting.
- Unlike some other clubs, every month is an “open” Bowl Show at the GCAS (i.e., there is no “theme,” such that one month cichlids are judged, the next livebearers, the next anabantoids, etc.).
- Any fish that wins any prize (1st, 2nd, or 3rd) may not be entered again in the same meeting year.
- The current Bowl Show Coordinator is Leonard Ramroop, who usually also serves as judge (although guest speakers are often asked to do the judging honors).
- 2.5 gallon containers are available for use (brought to the meetings by the Bowl Show Coordinator), but entrants are responsible for providing enough (and suitable) water for their fish.
- For a fish too large (or too small) for those containers, entrants must supply a suitable container, which must be clear on at least three sides.
- Only one fish per container (i.e., no “pairs”).
- No plants, ornaments, or equipment (filters, airstone, etc.) are allowed in the judging tank (an external mirror, or opaque cards between containers is acceptable, as is a cover that does not obstruct side viewing).
- Points are awarded: 5 points for 1st Place, 3 for 2nd Place, and 1 for 3rd Place.
- Ribbons are awarded: blue for 1st Place, red for 2nd Place, and green for 3rd Place.
- The person with the most points at the end of the meeting season receives the Walter Hubel “Bowl Show Champion” trophy at the Awards Banquet.
- The decision of the judge(s) is final.
- A running UNOFFICIAL total of the points awarded is printed in **Modern Aquarium**. Only the tally of points maintained by the Bowl Show Coordinator is official.
- **In case of ties:**
 - 1st Tiebreaker – most 1st Places
 - 2nd Tiebreaker – most 2nd Places
 - 3rd Tiebreaker – most entries

For The Love of Variatus

by Susan Priest, photo by the author

Don't you just love the monthly auctions at the GCAS? You never know what you might find. You could score a fish which is extinct in nature, such as an albino cherry barb. You could go home with enough home-bred angelfishes to fill a tank. Sure, you could get them off of Aquabid, but if you get them at a meeting you won't have to pay for shipping! In my kitchen there is a "home bred full moon female betta with black genes from the father" (that's a quote from the bag it was in), which I got for \$3.00. If you wanted to go looking for one, you would have to go to an IBC convention with crossed fingers and high hopes. And what about those platies? (Huh, did she just say platies? You can find them in every store that sells tropical fish. They're nothing special.)

I don't remember how much I paid for a bag of five or six platies, but they were special to me. My group of brilliant rasboras from a few years back had dwindled considerably in number, and there were a couple of leftover tetras playing hide-and-seek among the Amazon sword plants. I was looking for something to liven up my 90 gallon community, and they were exactly what I needed.* I got mine at the auction during our November 2014 meeting. I asked Stingray Bill to bring more to the holiday party, which he did, and I bought them too.

There are several species of platies. The one I will be discussing is *Xiphophorus variatus*. The females are more colorful than the males, and grow to be slightly larger. Every source which I have consulted in the preparation of this article has recommended *Xiphophorus variatus* as an ideal community fish. Based on my own experience with them,

I can add that they are hardy, healthy, and long-lived.

This fish is very often suggested as a good choice for beginning hobbyists, and indeed, it probably is. If you are new

to fishkeeping, then you will find satisfaction on many levels by adopting this fish. If you are an experienced fishkeeper and have never kept them, don't turn your nose up at them just because you think they are too easy. They are colorful, frisky, non-combative, and will eat any and every variety of fish food. What's not to love?

Livebearers in general will tolerate, and indeed prefer, cooler temperatures than most other tropical fishes, and may not need a heater in their aquarium. *Xiphophorus variatus* fall into this group. The cooler the water (see the text box on the next page), the more colorful these platies will be. There are many varieties of color among them (thus the name *variatus*). Most of mine have a tuxedo pattern, as in the photo above.



Anyone who is seeking a breeding experience with these livebearers will need to take a different road than I have, as any fry born in a community tank will quickly become food for all of the other occupants. You will need to give your *variatus* a tank of their own. Breeding these fishes can be more of a challenge than you might think. The two main considerations are hybridization and cannibalism.

If your *variatus* platies are sharing an aquarium with other livebearers, let the breeder beware!

These fishes will interbreed (i.e., hybridize) with guppies, mollies, other species of platy, and pretty much any livebearer with the same physiology. In some cases, this may be part of your plan for them. If you are trying to either

extend or develop a particular color morph, just bear in mind that the females store sperm from prior fertilizations, and the results may not be what you expect.

The span of time from the fertilization of the female to the birth of the fry is about 30 days. It is unlikely that you will be nearby to observe the fertilization, and equally unlikely that you will be nearby to witness the birthing of the fry. If you are not there to intervene, the aforementioned cannibalization will be taking place soon thereafter. There are a variety of breeding traps and nets available to separate the parents from the new fry. The secret to success is knowing when to isolate the female. Watch for the dark gravid spot!

In the course of reading your fish hobby magazines, I'm sure you have occasionally come across mention of a fish which is "no longer available in the hobby." In my mind's eye, this could be the outcome for any or all aquarium-suitable fishes. The possible causes for such an outcome are far beyond the scope of this article. Anyway, the point I want to make is that the day may come when even these charming fishes will no longer be available through commercial

channels. If they have stolen even a small piece of your heart, then make sure you always have a tank or two set aside *for the love of *variatus*!*

*For a complete accounting of the occupants of this tank, see the article entitled

"Angelfishes Don't Eat Broccoli," which can be found in the December 2014 issue of **Modern Aquarium**.

REFERENCES:

Aquarium Atlas, Vol. I, Baensch, Hans A., and Riehl, Dr. Rudiger, Baensch Publications, 1991.

Aquarium Care of Livebearers, Coletti, Dengler Ted, Ph.D., TFH Publications, 2008.

[Http://www.Fishbase.org](http://www.Fishbase.org)

Platies, Mix, Donald, TFH Publications, 1996.



WET LEAVES



a Series On Books For The Hobbyist
by **SUSAN PRIEST**

Many of you, the readers of **Modern Aquarium**, know Ted Coletti either personally, through his many writings, or by reputation. If you do, then you know that his expertise can be relied upon. We are in very good hands!

“This book was designed to fill a long overdue need in the aquarium hobby, where dated and often inaccurate information persists.” For example, on page 49 Dr. Coletti debunks “the salt myth.” He tells us why we might not want to add salt to a livebearer tank, and then offers us an alternative choice.

This is not an atlas-style book. In chapter seven, which is entitled “Who am I,” you will find twenty six pages of fish bios. The rest of the text, as described in the title, is dedicated to the aquarium care of this fascinating group of fishes. Our author tells us that fully one third of the fishes sold by fish farms are livebearers, while in nature livebearers make up only two percent of freshwater fishes.

Dr. Coletti’s PhD. status emerges in his writing style from time to time, but for

the most part his long tenure as a hobbyist is the basis for this very reader-friendly text. At first glance you might think this is a book for beginners. It is, however, one of those rare books which has something to offer hobbyists of every level of fishkeeping experience, including children. I have been keeping wet pets for more than twenty years, and have read countless books on the subject. Within the pages of this one I have found ideas and information which I had never come across before, detailed discussions of subjects of which I have previously had only a

superficial understanding, and descriptions of fishes which are new to me.

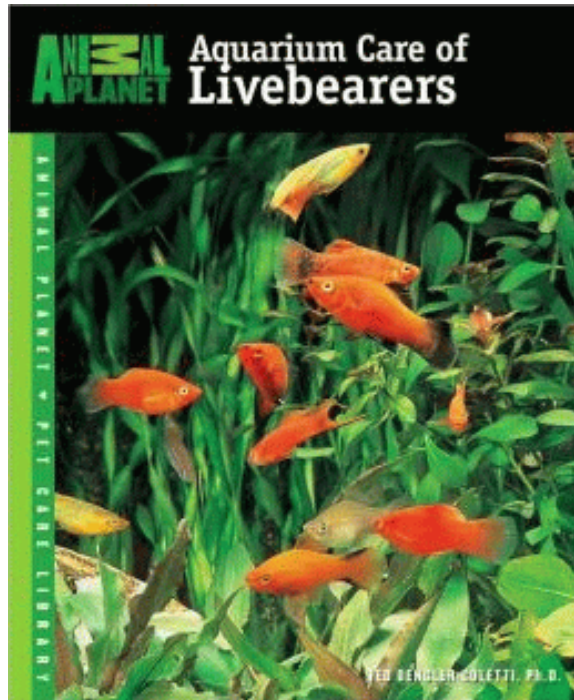
For example, our author has classified the Amazon molly (*Poecilia formosa*) as the “coolest livebearer.” Why? It is an all female species! It lures males from other species of molly to mate with it. The sperm does not contribute chromosomes, but rather it triggers a cloning process.

You can learn more

about this on page 81.

Special attention must be brought to bear on the chart of “Livebearer Species at Risk” on pages 60-62. This list is forever in flux. Unfortunately in the case of livebearing fishes, this list will forever be expanding.

Aquarium Care of Livebearers
by **Dr. Ted Dengler Coletti, PhD.**
TFH Publications, Inc.
August 1, 2008



Every chapter has a “Small Fry” text box to help children make good choices, and there are color photos throughout which will be enjoyed by readers of all ages. There are excellent descriptions of the leapfish phenomenon (page14), vegetative filtration (page 21), and superfetation (page72). You will find the detailed and cross-referenced index to be of great usefulness. If you want to acquire your own copy, then read the accompanying note for tips on where you can (and can’t) get it. I would have told you about this book eight years ago if I had been able to find it!

Author’s Note

Do you remember how disappointed you were on that fateful day when you walked into **Barnes & Noble** only to make the discovery that the entire CD department had been replaced by toys, games, and puzzles? You quickly approached the nearest sales person to ask them “WHAT HAPPENED?” The reply was that the CDs are only available on their website now. No longer could you enjoy the tactile experience of browsing your favorite categories and musical artists. No longer could you compare the merits of one CD to another by holding one in each hand. No longer could you listen to that newest discovery in your car as you took the long way home. AND there will shipping fees. **Aaarrggh!**

Although it is far more subtle, and much less obvious, the same phenomenon has occurred when it comes to shopping for books of the tropical fish genre. Sure, **Barnes & Noble** still has shelves full of books. However, the last time I checked I found exactly five choices suitable for fish hobbyists, and all of them were at least ten years old. I have had similar experiences in pet stores which sell books as well as tropical fish.

Even an antiquarian like me knows how to avail myself of the internet shopping experience known as **Amazon**. You can

click on “books,” and type in “tropical fish.” Literally hundreds of titles become available for your “browsing pleasure (ha!).” Having been involved with the world of fish lit for a very long time, I find that I am disappointed even by this array of choices, as they are mostly generic and outdated titles.

A couple of months back I was on the prowl for something to augment the article I was writing about variatus platies (*Xiphophorus variatus*). After several minutes of skimming the list, I was about to switch to the CD section when I had what turned out to be a “lightbulb moment.” While still in the book section of **Amazon**, I typed in the word “platies.” A much smaller, but dedicated selection appeared, none of which were on the expanded list. Aha! I ordered three of them, one of which was the book by Ted Coletti that I have been reviewing here. (The person who was categorizing these books must have known that platies are livebearing freshwater fishes, as this word was not in the title.) If I had had the opportunity to hold the other two books in my hands and thumb through their pages, I would not have purchased either of them. It was by pure serendipity that I was able to find Dr. Coletti’s book!

I’m sorry for being so long-winded on this subject. (I’m sure you have noticed that it is a sore spot for me!) The conclusion to be drawn here is that when you are book shopping on line, which is your only real option any more, be as specific as possible in your search.

P.S. My apologies to **Barnes & Noble**. It was not my intent to single you out. It’s just that, through no fault of your own, you are the only brick and mortar bookstore left in my area.



Fishy Friends' Photos

by Greater City Aquarium Society Fishy Friends

***H**ere is another installment of our newest ongoing column. These are photo submissions to our "Fishy Friends" Facebook group. I've left the species unnamed, but not the photographer. If you see a shot you like, and want more info, ask the photographer about it! I'm sure he or she will be delighted!*



I Still Like Duckweed!

(*Lemna minor*)

Story and Photos by Stephen Sica

According to the *Miniencyclopedia of Aquarium Plants* by Peter Hiscock, “Duckweed is adaptable, fast growing, hardy and has no specific requirements, but is often considered a pest. In good conditions it spreads rapidly...” Well, I have been trying to grow duckweed for quite some time. I just wanted to grow a little; I didn’t want to cover the whole surface of an aquarium. About five years ago I set up a twenty gallon aquarium in my backyard, but instead of growing duckweed I decided, without my knowledge, to specialize in another plant form—algae. I guess I wasn’t sufficiently into duckweed at the time. I didn’t think that I’d be so good at growing algae either, but I guess the sunny summer weather had a mind of its own, even though I thought that I had found a nice, shady place for the tank. It seemed that my career in duckweed had ended.

Last summer we were dog-walking by one of three ponds in Alley Pond Park in Queens. It was our routine walking course. My interest in duckweed was piqued once again when I gazed at so much of it growing on the water surface just a couple of feet from shore. I had seen water plants growing on the surface for years but last summer I was taken over by a strong attraction for duckweed. In fact, I purchased a butterfly net in the local dollar store, and on our next walk to the pond, I brought home a sample. I deposited it in a small tank in my basement that I placed on a bench low to the floor. I had a long fluorescent light illuminating a ten gallon tank. I moved the fixture so that it also hung above the small duckweed tank and illuminated both tanks. It was about two feet above the duckweed. I hoped that it would help the duckweed to

grow without burning it. It was illuminated for about six hours into the night on a daily basis.

After a seventeen day car trip in September, I came home to a mushy mixture of duckweed. I skimmed the dead duckweed and allowed the remainder to make

a further mess, then discarded it all before Donna could smell anything funny. She has an uncanny bloodhound-like ability to smell everything. I have been accused of making smells that I had nothing to do with. In fact, I have difficulty smelling anything! Women probably smell better than men—both ways.

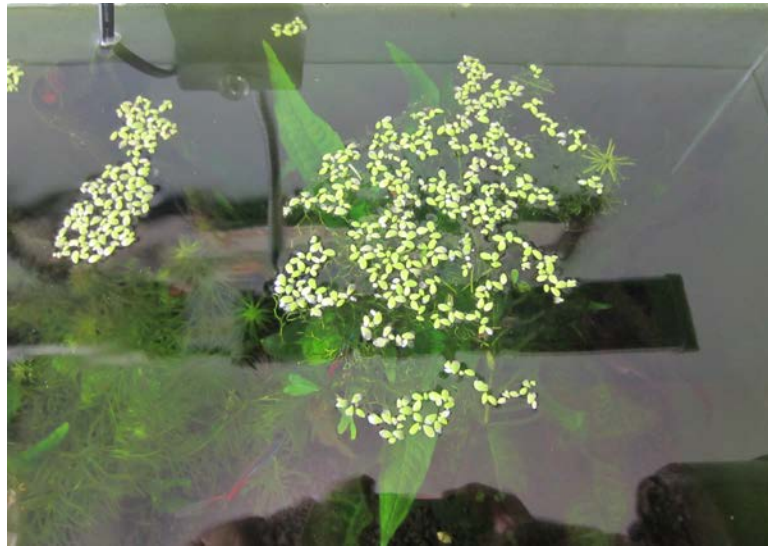
I try to be modest, because I’m not very good in many things that

I try to do. I know that my skills as a cultivator of aquarium plants leave something to be desired. My improvement as a fish and plant hobbyist moves at the speed of glaciers.

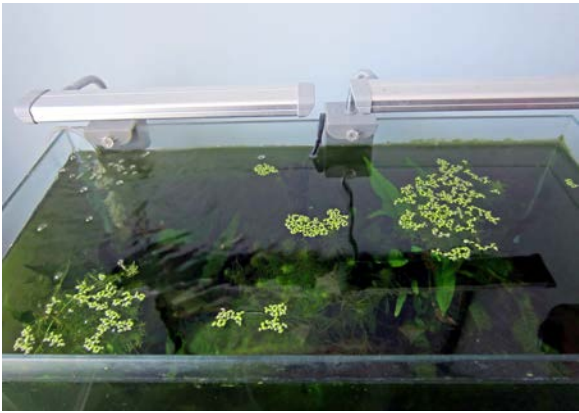
After my encounter with the Alley Pond Park duckweed, I became fixated upon growing it, or at least having it live for a while with a few fish in my very own tank. While this goal may not seem difficult to most hobbyists, I have already stated that my learning curve leaves much to be desired.

In the spring of 2014 I decided to downsize my thirty-six gallon bow front tank and replace it with a smaller seventeen gallon open top tank. I purchased two twelve inch LED fixtures that hung over the tank like a gooseneck lamp. There is a space of about six inches between the fixture and the water surface, with all open space because the tank has no cover. In the fall I purchased fish at a Greater City auction. There was some duckweed in the bag, so I added both fish and plants to my new aquarium.

There wasn’t much duckweed, and I am unsure how much it had grown floating on the water’s surface,



Close-up of subject duckweed. A two-week car trip and my covering the open top with a sheet of clear plexiglass are the prime suspects in the demise of the plant. It was all my fault, but I might give it another try when my local pond produces another crop this summer.



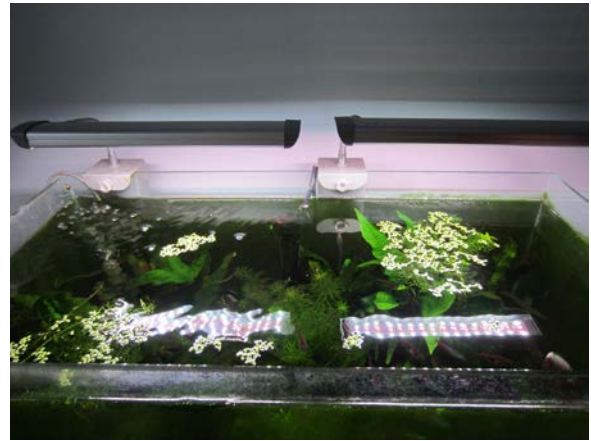
A few small clumps of Duckweed (*Lemna minor*) swirl around the surface of my open top, seventeen gallon aquarium. Lighting is provided by two clip-on white and red light LED fixtures on a flexible arm. Red is supposed to encourage photosynthesis. Each fixture has a five watt output.

because I never bothered to measure it. It must have multiplied, because it would swirl around the surface and adhere to me whenever I put my hand in the water. I would meticulously remove every speck and place it back into the tank.

My photos show it floating on a very small portion of the surface, maybe ten percent, which was sufficient to please me. I concluded that an open top tank was optimal to grow floating aquatic plants even with my limited success.

In April we drove to Florida to visit the family. We would be away from home for at least two weeks, so I visited our basement to look around for something that I might use to cover the top of my aquarium to lessen evaporation. I found a thin piece of plexi-glass, so I cut it to size, with a notch on one side for my fish feeder. Everything fit and worked perfectly. Off we went on our trip.

Fifteen days later we drove into our driveway in the late afternoon. We were home! Eventually I got around to checking my fish tank. Very little water had evaporated, but the food in the automatic feeder had coagulated into a semisolid mass. It must have been



Sponge filter in the left rear of the fish tank moves the duckweed around on the surface. I never encouraged sufficient growth to cover the whole surface. Some duckweed was lost during water changes and miscellaneous cleaning.

the result of heat and humidity rising from the water. It had moistened the drum and turned the food into a soggy mess. This had disabled the feeder.

I looked through a fish supplies catalog, and noted that each feeder had an explanation that its food drum was air-tight and enclosed to prevent this



The duckweed has swirled into a neat little pod as a result of minimal water flow created by a small sponge filter. Note the white and red LED light reflections on the surface of the water.

problem. I guess that they only don't work for me! My feeder had ceased releasing any food.

I wondered for how long this had gone on. Were the fish hungry? They all seemed in good shape, but a week later five Harlequin rasboras (*Rasbora heteromorpha*) began to expire one by one. I couldn't figure out if there was a connection. Of much lesser importance, the top covering did not do my small group of duckweed any good. Just about every

last bit was dead or had been absorbed into the biotope, thus ending my brief career with duckweed.

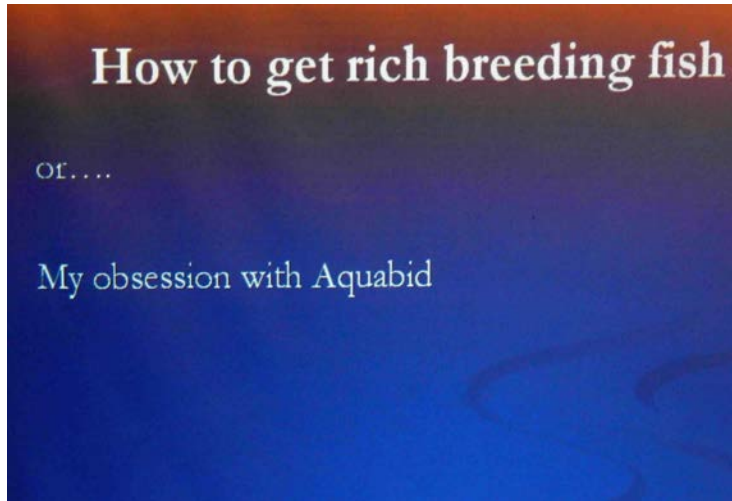
I decided to remove the top. I hope my fish and plants are happy to smell fresh air again. Still, I wonder when this summer the local pond will have another batch of duckweed ready to go?



Pictures from our



Tonight's program is presented by Jeff Bollbach



Speaking on everyone's favorite topic — money!

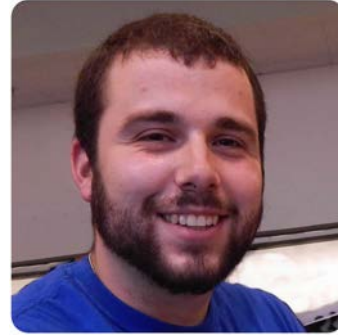
Welcome to our newest members:



Arthur Platt



Nicholas Caputo



Jacob Coleman



Two pals, Bill Adams and Elliot Oshins



Bob Hamjie must have just gotten a bargain



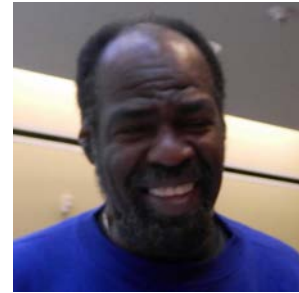
Our two hard working treasurers

Last Meeting

Photos by Susan Priest



What could possibly be so interesting?



Our caption contest star,
Denver Lettman

Door Prize Winners:



Bill Amely



Steve Sica

Bowl Show Winners:



1st place: Mario Bengcion



2nd & 3rd place: Rich Waizman

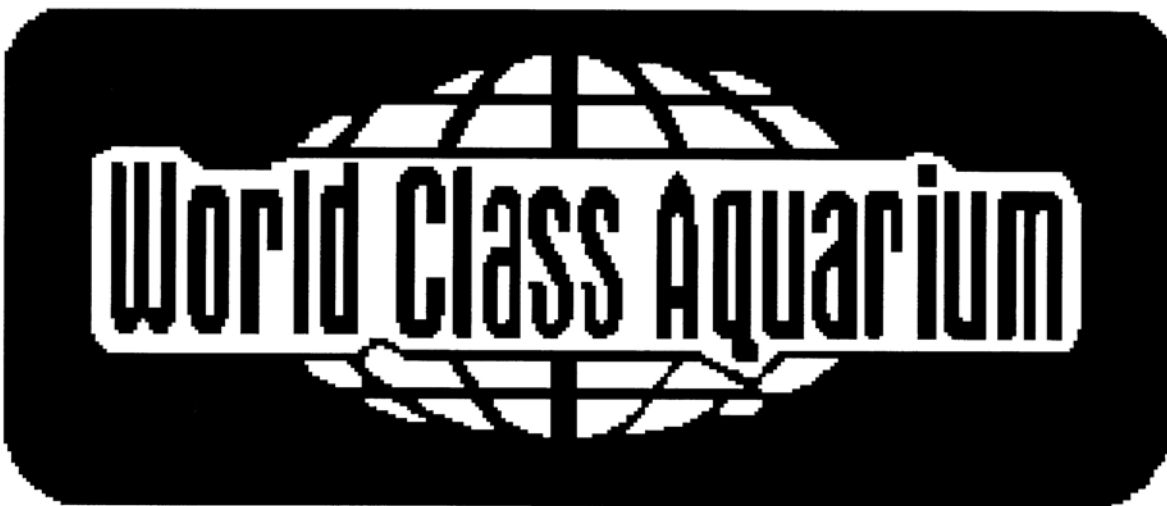
Our Youngest Winner

Zachary Hammerman!



Zachary Hammerman holds aloft his plaque and winnings from his 1st-place effort in the NEC's 2014 Publication Competition.

Congratulations, Zachary. I hope this marks the beginning of many great accomplishments! — Editor



- Marine Biologist On Staff
- Custom Tank Builders for the NY Aquarium
- Manufacturers of Aquarium & Filter Systems
- Custom Cabinetry & Lighting
- Largest Selection of Marine & Freshwater Livestock in NY
- New York's Largest Custom Aquarium Showroom
- See Working Systems on Display

2015 Flatbush Avenue
Brooklyn, NY 11234
(718)258-0653

Open Saturdays and Sundays
Amex, Discover, MasterCard, Visa
2 miles off exit 11N of the Belt Parkway

www.WorldClassAquarium.com

The Names You Know, the People You Don't:

Dr. Louis Agassiz

Derek P.S. Tustin

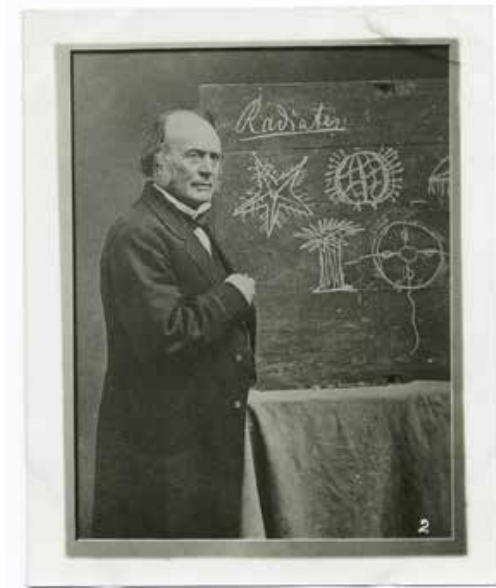
During my presentation in January 2011, some people indicated that the Latin names I was so used to dealing with in my interest with Rainbowfish, weren't necessarily known to them. ("Now you are all familiar with Dr. Gerald Allen, right? ... No? Okay, he is...") The fish that captivate their interest have different discoverers, describers and honourees associated with them, and as they were not related to Rainbowfish, I had never really looked at those names. At the January 2011 meeting George had once again asked me to lend a hand with the auction and in doing so I ended up auctioning a bag of *Apistogramma agassizii*, named in honour of the next gentleman I would like to introduce you to.

On May 28th, 1807 Jean Louis Rodolphe Agassiz was born in Môtier, Switzerland to the Reverend Louis B.R. Agassiz and his wife Rose. The eldest of four surviving children, Louis (as his family always referred to him, and as he would always be known) was seen as special – charming, exceedingly bright and with an inquisitive approach to the world around him. He was initially educated at home by his mother and father, but at the age of ten he left for formal schooling at the College of Bienne where he studied until he was fourteen. Then, deciding that he did not want to be a clerk for his uncle, he managed to obtain a placement at a college in Lausanne, Switzerland where he studied for another four years. Both the schools in Bienne and Lausanne emphasized languages, especially the classic ones – Latin, French, Greek, German and Italian. Seeking to further his understanding of the natural sciences, and leveraging his skill with languages, he was able to find a place at a school in Germany, the University of Zurich.



Dr. Louis Agassiz

The next five years were a period of intense study that saw Louis at the aforementioned University of Zurich, the University of Heidelberg, the University of Erlanger-Nuremberg and the University of Munich. During this time he received a Doctor of Philosophy degree from Erlanger-Nuremberg (1829) and a Doctor of Medicine degree from Munich (1930).



Fully endowed as a Doctor, Louis left Germany for Paris, France. There he continued his studies under the tutelage of Alexander von Humboldt (a noted German naturalist and explorer whose work on botanical geography laid the foundation for biogeography) and Georges Cuvier (a French naturalist and zoologist who was the first to establish extinction as a fact). From von Humboldt he was taught geology and from Cuvier, zoology.

Also during this time he was hired by Carl Friderich Phillip von Martius, a noted German botanist and explorer. From 1817 to 1820 von Martius and Johann Batist von Spix undertook an expedition to the Amazon River. The expedition gathered 6,500 plants, 2,700 insects, 85 mammals, 350 birds, 150 amphibians and 116 fish. While these specimens were to become the basis of the collection of the Natural History Museum in Munich, Germany, von Spix died in 1826 before he could complete classification of the fish. This resulted in von Martius hiring Louis to assist in the classification and description.

In 1932 Louis was appointed a professor of natural history at the University of Neuchâtel in Switzerland. Around the same time he married his first wife, Cecile (Cily) Braun. He continued to study, publishing mainly on fossil ichthyology but also on various aspects of geology. In 1937, the same year he was elected a member of the Royal Swedish

Academy of Sciences, he published a paper in which it was first scientifically proposed that Earth had been subject to previous ice ages.

In 1942 Louis was invited to the United States of America to present a lecture on *The Plan of Creation as Shown in the Animal Kingdom*. During and after his twelve lectures, Louis found that both the scientific and financial advantages presented were great, and he decided to spend an extended time in the United States and Canada where he could indulge his curiosity and interest in both ichthyology and glaciology.

Sadly, in 1948, Louis received word that his wife Cecile, who had remained in Switzerland with their three children while Louis was in America, had passed after a prolonged illness. After a brief return to Switzerland, he came back to America, this time to stay.

Shortly thereafter he was offered the positions of both professor of zoology and professor of geology at Harvard University. Later in 1849 his fourteen year old son, Alexander would join his father in America. Also that year he would announce his engagement to a college teacher, Elizabeth Cabot Cary, the sister-in-law of one of his fellow professors. They would marry the following year, and in August of 1850 Louis' thirteen year old daughter Ida and nine year old daughter Pauline came to live with him, his new wife and their brother Alexander.

Although all his previous teachings in Europe and all his previous scientific theories and discoveries were extremely successful, it was at Harvard that the scientific legacies of Louis became permanent. The next ten years of his life were filled with teaching, publications and scientific lectures, and they culminated in his being one of the best know scientists in the world.

But the frenetic pace that he kept wore on him. In the mid-1960's, suffering from ill health, he forewent academia to return to active collecting. In early 1865 he lead an expedition to Brazil, returning home in late 1866. His account of this, *A Journey in Brazil*, was published in 1868. In December 1871 he joined the Hassler Expedition to South America alongside his wife Elizabeth.

Just under two years after returning from his last expedition, Louis died on December 14th, 1873 at age sixty-six in Cambridge, Massachusetts.

Criticism

For all that Dr. Agassiz's work was deemed extremely successful, it must be noted that there is also a stigma associated with him. As the son of a pastor, Dr. Agassiz was deeply religious. He believed in God and believed that God created Earth and all its inhabitants. He was adamantly opposed to the Theory of Evolution as being presented by Charles Darwin and the theories of Dr. Agassiz always allowed for the work of God.

The major criticism of Dr. Agassiz's work is in relation to his theory that has come to be known as "scientific racism". Basically the theory that he espoused posited that the different races of humanity came from separate creations, and that they therefore possessed separate and unequal attributes and abilities.

In recent years, there have been those who have sought (and in some cases succeeded) the renaming of institutions and landmarks that had formerly been named in his honour based on what they see as his scientific racism.

Legacy

The work of Dr. Agassiz was so far reaching that many places, geographic features, and species have been named in his honour. A partial list includes;

Places

- Agassiz – A neighbourhood north of Harvard University in Cambridge, Massachusetts)
- Agassiz Crater (Mars)
- Agassiz Glacier (Montana)
- Lake Agassiz – An immense prehistoric glacial lake located in the centre of North America. Fed by glacial runoff at the end of the last ice age, it was greater in size than all of the modern Great Lakes combined, and held more water than all the lakes in the world today.)



Mountains

- Mount Agassiz (4,236m/13,899ft – California)
- Agassizhorn (3,946m/12,946ft – Switzerland)
- Agassiz Peak (3,766m/12,356ft – Arizona)
- Mount Agassiz (3,733m/12,248ft – Utah)

Non-Fish Species

- *Anolis agassizi* (lizard)
- *Astrotoma agassizii* (Antarctic invertebrate)
- *Berthella agassizi* (sea slug)
- *Chelonia agassizi* (sea turtle)
- *Cyphastrea agassizi* (coral)
- *Exoprosopa agassizi* (bee fly)
- *Gopherus agassizii* (Desert Tortoise)
- *Isocapnia agassizi* (stonefly)
- *Publius agassizi* (beetle)
- *Xylocrius agassizi* (longhorn beetle)

The Fish

- *Alepocephalus agassizii* (Agassiz's slickhead [Marine])
- *Ambassis agassizii* (Agassiz's olive glassfish)
- *Aphyocharax agassizii*
- *Apistogramma agassizii* (Agassiz's dwarf cichlid)
- *Cathorops agassizii*
- *Chlorophthalmus agassizi* (Shortnose greeneye [Marine])
- *Corydoras agassizii* (Agassiz's cory cat)
- *Cratinus agassizii* (Threadfin seabass [Marine])
- *Foetorepus agassizii* (Spotfin dragonet [Marine])
- *Forbesichthys agassizii* (Spring cavefish)
- *Ipnotops agassizii* (Grideye fish [Marine])
- *Leporinus agassizii* (Agassiz's leporinus)
- *Leptochilichthys agassizii* (Agassiz's smooth-head [Marine])
- *Liparis agassizii* (Agassiz's snailfish [Marine])
- *Monomitopus agassizii* ([Marine])
- *Orestias agassizii* (Andean pupfish)
- *Pomacentrus agassizii* (Creole damsel [Marine])
- *Rioraja agassizii* (Rio skate [Marine])
- *Salvelinus agassizii* (Silver trout)
- *Scorpaena agassizii* (Longfin scorpionsifh [Marine])
- *Xenichthys agassizii* (White salema [Marine])



Gopherus agassizii (Desert Tortoise)



Apistogramma agassizii
(Agassiz's dwarf cichlid)



Corydoras agassizii
(Agassiz's cory cat)

The species we are familiar with in our hobby are *Corydoras agassizii* and *Apistogramma agassizii*. I actually have a small school at home of *C. agassizii*, but DRAS members, especially the cichlid orientated ones, would be most familiar with *A. agassizii*, a species that has been in the aquarium hobby since 1909 when they were first imported to Germany. They were first described in 1875 and were first gathered by Dr. Agassiz during his aforementioned expedition to the Amazon in 1865 – 1866.

Next time I have the chance to auction some *Apistogramma agassizii*, I'll be sure to remember Dr. Louis Agassiz and I hope you will as well.

Reprinted from Tank Talk – April, 2011 / Volume 38 No. 8, published by the Durham Regional Aquarium Society, Ajax, Ontario, Canada.



GCAS Classifieds

FOR SALE: 50 Gallon Breeder Tanks (52 gal.) 48 X18 X 14H. Drilled, with bulkheads. \$25ea.

Call Coral Aquarium: 718-429-2934

FOR SALE: African cichlids -- all sizes, as well as tanks and accessories. Call Derek (917) 854-4405



GCAS Thanks You!

Our Generous Sponsors and Advertisers

The Greater City Aquarium Society extends our heartfelt thanks to the following manufacturers for their generous donations. Thanks also to our advertisers, whose contributions to our success as a Society are deeply appreciated. Please patronize our supporters.

Aquarium Pharmaceuticals

Aquarium Technology Inc.

Aqueon

Brine Shrimp Direct

Cobalt Aquatics

Coralife

Ecological Laboratories

Florida Aquatic Nurseries

HBH Pet Products

Kent Marine

Marineland

Microbe Lift

Ocean Nutrition America

Oceanic

Omega Sea

Red Sea

Rena

Rolf C. Hagen

San Francisco Bay Brand

Seachem

Zilla

Zoo Med Laboratories Inc.

Cameo Pet Shop

Coral Aquarium

Monster Aquarium, Inc.

World Class Aquarium

Zoo Rama Aquarium

AN AQUARIST'S JOURNEY

Story and Photos (unless noted) by Rosario LaCorte

Chapter 15

Having made my first trip in 1958, and now my second in 1977, my urge to return for more collecting was great. Once you've made such a journey, it becomes almost an obsession to return—always feeling there are so many more discoveries to be made!

Despite the expense of the six-week expedition, I still had some money left over from the funding I had received from National Geographic. By careful planning, I was able to budget another trip to Brazil. I now had some contacts with Brazilians whose interests corresponded with mine. The biggest expense would be the round-trip ticket to São Paulo.

The main force behind my intense desire to return to Brazil was a visit to my home by Stan and Marilyn Weitzman. Stan gave me a scientific paper written by Carlos Cruz in 1973, concerning the re-discovery of *Cynolebias constanciae*, one of the annual killifish discovered by General (then Major) White in 1941, and named for his wife Constance. I thought that if I contacted Carlos and obtained his assistance, it would be a great opportunity to add this species to the small group of annuals available here in the United States. Stan supplied me with Carlos' address at the Federal University, and Carlos responded by offering to assist in collecting *constanciae*.

I arrived in São Paulo on July 10, 1978, and again rented a room in the home of Donna Antonetta. I was on my own, and the first few days were difficult, as one of my contacts had promised to open some doors for me, but had not come through. I began to worry, as I had three weeks to accomplish the main purpose of my trip, but after one week I had no results to show.

I met Persio de Souza, a student of Drs. Haraldo Britski and Naercio Menezes. The son of two college professors who had once taught in Pittsburgh, Persio's English was perfect, and he agreed to accompany me to Rio and the Federal University.

Persio had a lively interest in cyprinodonts, and had gone to the Mato Grosso to collect *Neofundulus paraguayensis*, another annual fish that had not been seen in the United States. He had taken a series of photos showing their reproductive behavior as they

dove into a bed of peat moss, burying their eggs. This is behavior typical of many annual species. The eggs lie dormant during the dry season, then hatch when the waters return, to begin the cycle again. Most aquarium hobbyists interested in these type of fishes have by now pretty well mastered this cycle of annuals.

Persio had a few personal matters to take care of, and I was getting pretty nervous. Eventually we left, on Saturday afternoon, July 18, by bus. The ride had some scenic areas as we traversed the mountain range. The highway was heavily industrialized, and the center lane was planted with thousands of hibiscus. Arriving in Rio about 7 PM, we took a taxi to Praça Tiradente, a suburb of Rio.

We stayed in a rather seedy place, the Hotel Rio. The bathroom was communal for the 5th floor—not what I was used to, but I had to accept the situation. The price was 100 cruzeiros (about \$10 U.S.), which included breakfast. As high up as we were, we were still besieged by hungry mosquitos all night.

The following morning we met another contact, Ricardo Macedo Correia e Castro, an ichthyology student. He didn't speak English, but he seemed to be upset about the hotel Persio had chosen. An argument ensued, and I thought, wow, this is going to explode! Ricardo was quite ill, and appeared to have hepatitis, but despite his weakened condition he was nice enough to arrange our meeting with Carlos Cruz. The dispute settled down as I attempted to soothe the ruffled feathers. (As a side note, Ricardo today is an ichthyologist, has learned to speak English, and studied with Stan Weitzman at the Smithsonian. I spoke with him by phone several years ago.)

The following morning we went to the Federal University, some distance outside of Rio. There we met Carlos Cruz, with whom I had been corresponding. Though Cruz was interested in fish, his field of study had been herpetology. He was gracious and charming, and showed me around his lab, where he had some large tanks. In one of them, he showed me a characin he had collected in the state of Bahia, a long distance north of Rio. It was a very handsome tetra, and resembled *Rachoviscus crassiceps*. He felt that it



Carlos Cruz and Rosario at Federal University, Rio de Janeiro.

might be a *Glandulacauda*, but I disagreed, pointing out that it lacked the gland in the caudal area, and had all the characteristics of a *Rachoviscus*. I had some advantage in this conversation, as I had a long history with characins, and had a pair of *R. crassiceps* that had been given me by Stan Weitzman, who had collected them in southeastern Brazil in 1975.

There was no question that Cruz's fish was new and undescribed. Before leaving Brazil I posted a letter to Stan, informing him of Cruz's fish, and suggesting that he contact Carlos and take a look at them. In 1981 Stan and Carlos described the new species as *Rachoviscus graciliceps*. I would have liked to bring home some specimens, but he only had a few.



Rachoviscus graciliceps

My main goal while collecting with Cruz was to locate some of the annual fishes that General White and his wife Constance had found in 1940-41. Since it was now July, and the dry season, our chances of finding locations were slim, but not impossible.

Carlos arranged for Persio and me to stay at the university, where visiting scientists and students were lodged. Carlos had to leave, but we were placed in the able hands of Dr. Eugenio Izecksohn. Eugenio drove us to an area about five miles from the university, where he said that during the rainy season there were pools in a forested area that contained large numbers of *Cynolebias* (now *Leptolebias*) *minimus*.



Leptolebias minimus

The spot that Eugenio led us to was dry, but we crossed the road and found a marshy area that had a few inches of water and an abundance of cane grasses. The water was extremely turbid, and the thickness



Photo of small pool in last stages of the approaching dry season. Habitat of *Leptolebias minimus*. Male in preceding photo was captured in that pool.

of the grasses made netting difficult, but by pushing down on the grasses we were able to capture a few livebearers. Finally, Persio captured a single male *L. minimus*, and with renewed determination we gathered a total of three females and four males. Upon our return to the university, we checked the pH of the water, which measured between 6.1 and 6.6.

The following day we left the university, to head north on the Roadovia Amaral Peixoto. As we left the university grounds, we came upon an accident. The driver side door was completely open, and a middle-aged man was dead behind the wheel. There were about forty or fifty people milling about, just staring at the unfortunate scene. When we returned later in the day, nothing had changed at all. For me, as an American, it was a rather strange situation. No police, no ambulance, nothing.

As we drove north, we stopped at a pool with much cane grass growing in it. Pushing through the cane, we collected quite a number of *L. minimus*. The water, shaded by the cane, was quite cool. We captured a single female *Cynolebias* (now *Nematolebias*) *whitei*, then across the road in another pool we captured a male of the same species.



Nematolebias whitei

We drove another 50 or so miles, when I noticed a pond alongside the road, where we collected some young *Hyphessobrycon flammeus* (trade name Von Rios), as well as some *Phoxinopsis typicus*, *Cichlasoma facetum* (chanchito), *Mimagoniates microlepis*, and *Phallocerus*. From this collection site, we traveled toward Rio dos Ostros and stopped



Professor Eugenio Ezecksohn of the National University of Rio.

at a large pool completely overgrown with cane. After several probes, we collected more *minimus* types, whose pattern was different from those we collected on the Federal University grounds. We also finally found some juvenile *Cynolebias* (aka *Simpsonichthys*) *constanciae*, the fish that was the main purpose of my journey. A short time later, Carlos captured a magnificent, large male *constanciae* with exquisite finnage and a rich, brown color throughout. We were all elated!

I photographed it immediately, using a small photo tank that I always carried with me. After about an hour at this site, we had managed to collect four large pairs of *constanciae*, and a number of juveniles. The fact that there were numerous juveniles indicated that a period of diapause or desiccation was not necessary to produce healthy juveniles.



Simpsonichthys constanciae -- 5 minutes after capture



S. constanciae -- offspring of fish shown above



Chanchito (Now *Australoheros facetus*, formerly *Cichlasoma facetum*) with fry.

One of the problems with many annual fishes from both South America and Africa is newly hatched fry having a defective abnormality of their swim bladders, resulting in difficulty swimming due to erratic buoyancy. This can occur when the aquarist either over-extends their period of desiccation or attempts to hatch eggs too quickly, without a proper resting cycle. I learned as far back as 1957 that *Nematolebias whitei* could be reproduced normally without going through a period of desiccation.

The collection sites were as follows:

- *Leptolebias minimus* was collected July 10, 1978, at Horto Forestal de Santa Cruz, Municipio de Itaguaí, Rio de Janeiro.
- *Leptolebias minimus* was collected July 11, 1978, along with *Nematolebias whitei* at KM 16-17 of Rodovia Amaral Peixoto, Rio de Janeiro.
- *Cynolebias constanciae* was collected July 11, 1978 at Barra de São João, Rio de Janeiro.
- Characins collected near Saquarema, Rio de Janeiro. Some of the *minimus* types collected turned out to be new species, according to Wilson Costa, being later described as *L. cruzi* and *L. fractfasciatus*.



Leptolebias fractfasciatus

After our successful journey we were taken to the bus terminal in Rio, to make our return trip to São Paulo. Arriving late at night, we found it quite cold. São Paulo is on a plateau, and the evenings in July (their winter) can be quite chilly. I was concerned about the fish being chilled, but all was well, and the following morning I took them to the Museu de Zoologia, where I had a battery of aquariums that Stan Weitzman and I had purchased the previous year. The



Carlos Cruz collecting *constanciae*

tanks had been necessary for our collections made in the south, and they served their purpose once again.

On this journey I was well prepared to care for the fish during my stay in São Paulo. Leaving the U.S., I brought *Artemia* eggs to hatch and feed collected fish. Tubifex worms could be purchased in São Paulo at Roberto Takase's retail fish store. Stan and I had met Roberto in 1977, and had purchased the aquariums and accessories from him.

On July 18, Jose Lima Figueredo, one of the ichthyologists I had become friends with the previous year, came to my rescue when I needed some assistance for a journey to Registro, a small town in the southeast corner of São Paulo state. Jose made some calls, and learned that some students from the Institua de Peixas went weekly to the river in Registro to gather water samples. I would need to depart at 5:30 AM.

The crew was composed of Carlos the driver, Silvia R. Destro, and two young Japanese women, Elza and Mithine Takino. None of them could speak more than a word or two of English. My purpose for the trip was to find a man named Joaõ Batista de Barros Arango, who was the owner of a banana plantation. In 1972 Carlos Cruz had discovered a population of *Cynolebias* (now *Leptolebias*) *aureoguttatus* on the plantation of Sr. Arango. I had Cruz's recently published scientific paper, which described a gaudy miniature fish that had never been in the U.S. My Portuguese was much better than it had been the previous year, and I was able to carry on a decent conversation and make my wishes known.



Joaõ Batista de Barros Arango and son

The students were dropped off in Registro, and Carlos and I began our search for Sr. Arango. The town of Registro was not large, so by simply asking around, we were able to locate him fairly quickly. He remembered Cruz from six years earlier, and took us to the area where *L. aureoguttatus* had been found. We searched for a small body of water, but the area was dry, and none could be found, except for a ditch about 20 inches wide and perhaps 18 inches deep.

The water was so black from the humic acid that you could hardly see more than a couple of inches below the surface. A banana plant lasts for a year and bears one stalk of bananas. Then a new shoot begins to form from the root, and becomes the mother of the next bunch of bananas. The expended plant is then cut down. This continues year after year.

The ditch was made wider and deeper by Sr. Arango to drain the area. This action may have destroyed that particular habitat for *L. aureoguttatus*. Using a long-handled net, I decided to investigate the blackwater ditch. I made several probes with the net, but came up empty-handed. The water was so black I could not see below the surface; I could not even be certain there was anything alive in that environment.

Determined to make a thorough search, I walked along the edge and continued making quick thrusts into the water. Finally, I caught some tetras, which at first fooled me as to their identification. They were blood-red, and at first I thought they might be a new species. I had a pretty thorough knowledge of characins in the southeast part of Brazil, and could identify most of them. It wasn't until a few days later, as I housed them in the aquariums at the Museu de Zoologia, and the brilliant red coloration was subdued in the clear water, that it became obvious to me that these were *Hyphessobrycon griemi*, a close relative of *H. flammeus*, also known in the aquarium trade as the von Rio flame tetra.

Well, the trip to Registro was not a completed success, but I was nevertheless able to return with some species of interest to me.

I mentioned earlier a fish store in São Paulo owned by Roberto Sikuro Takase. Roberto's father was an immigrant from Japan, arriving in Brazil in 1924. There is a large Japanese community in São



Roberto Takase holding bag of *M. inequalis*. Santos, Brazil



Mimagoniates inequalis

Paolo, and many were doing wonderful things in the field of agriculture. Their love of nature is obvious, and so it was with Roberto's father, who was one of the pioneers in the tropical fish industry in Brazil. Roberto's exposure to fish was through his father, and they did a lot of collecting together. His father discovered the coffee bean tetra (subsequently named in his honor *Hyphessobrycon takase*) in the Amapá territory in 1961. Meeting on several occasions, Roberto and I became good friends. He volunteered to take me to the seaport of Santos, where he knew several good collecting habitats.

Roberto was a good businessman, and he knew how to circumvent problems. One of these was not being able to purchase gasoline on Sundays. The government wanted to reduce unnecessary driving to slow the outflow of money to the oil producing countries. It could of course be circumvented by carrying extra gasoline in metal or plastic containers, which is what Roberto did with his van.

Our trip to Santos was very successful. In one blackwater stream we collected well over a hundred *Coelurichthys microlepis*, a beautiful *Glandulocauda*. Roberto was able to gather many species for his retail shop; this was a good way to overcome the expense of purchasing gasoline, which was quite expensive.

My trip to Brazil was drawing to an end, and I needed to prepare for my flight home. I felt it had been a successful expedition, the prize being *Cynolebias constanciae*. For years it was thought to



Mimagoniates microlepis

have been extinct, and had never been imported into the United States. I felt especially elated to present it as an addition to the list of new fish to the American Killifish Association. Upon returning home, I began an intensive breeding program to make them available to American aquarists.

In addition to a nice assortment of characins and *Corydoras*, I also returned with wild stock of *Cynolebias whitei*. The strains I was used to seeing in the U.S. were lacking in finnage and color. The degradation of the appearance of many fish species is often referred to by the remark, "I need some new blood in my stock." My view is that the feeding regimen is inadequate, and the resulting nutritional deficiency is responsible for the poor quality of color and finnage.

I returned from Brazil with a single male *C. whitei* and three females. Surprisingly, the wild stock did not produce a single fertile egg. Using the wild females with males from my own stock, egg fertility was nearly 100%. The resulting offspring were magnificent! As to the *C. constanciae*, I returned with four pairs, and was highly successful, reproducing large numbers of offspring.

In 1958, I had reproduced a number of *C. whitei* soon after they had been first imported. I discovered that their eggs could go through the complete developmental cycle in water rather than requiring a period of desiccation. I used the same method in reproducing *C. constanciae*.

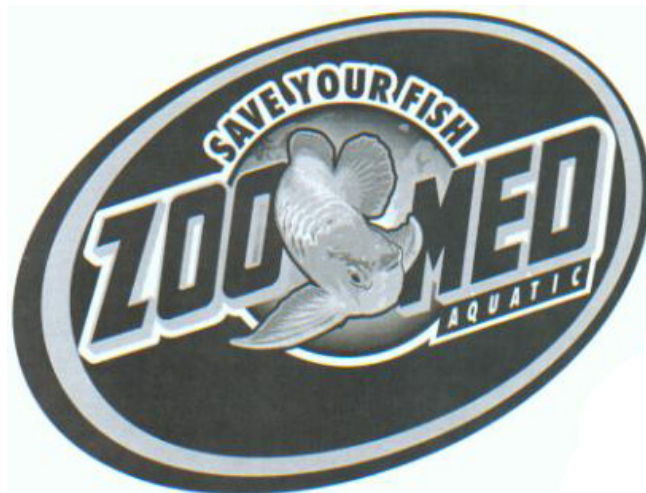
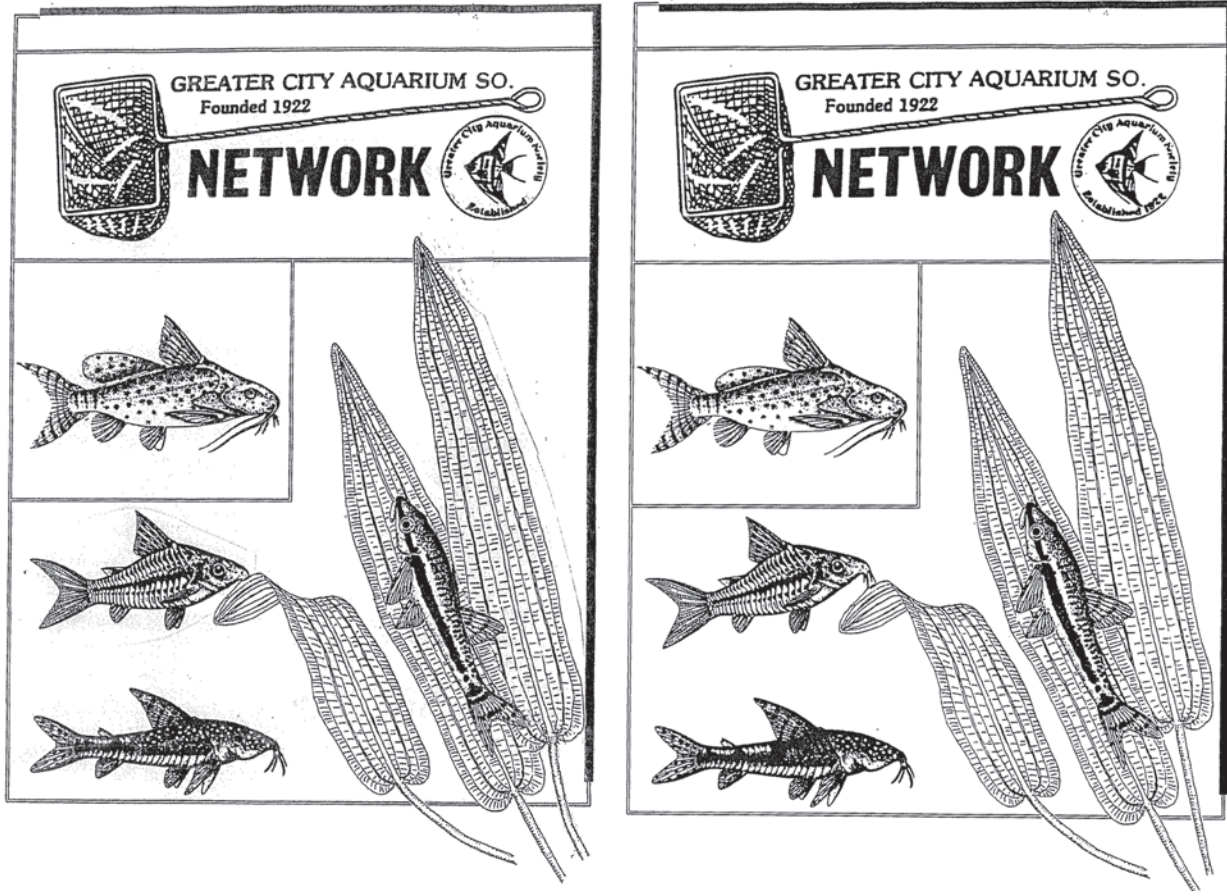


Copyright 2015 Rosario S. La Corte and the Greater City Aquarium Society. No duplication in any medium is permitted without express written permission. This prohibition includes not-for-profit aquarium societies.

What's the Difference?

by Horst Gerber

*How observant are you? This is a feature that used to run in **Modern Aquarium** back in the 1990s (or so I'm told — I was of course much too young then to remember). There are several subtle differences in the two drawings below. How many can you find? Email or fax me with the differences you find (See my column on page 2 for those addresses). We'll post results next month. — Editor.*



GCAS Member Discounts at Local Fish Shops

The fish shops listed below offer discounts to members of Greater City Aquarium Society. To take advantage of these generous offers, just present your Greater City ID before checking out.

STORE HOURS
 Mon.: - Fri.: 10:00 A.M. - 9 P.M.
 Saturday: 10:00 A.M. - 7 P.M.
 Sunday: 10:00 A.M. - 6 P.M.

"Quality and Service since 1969"


FishTown, U.S.A.

196-33 Northern Blvd., Flushing, NY 11358 • (718) 539-5396
www.fishtown-usa.com

10% Discount on fish.

BIRDS, REPTILES
SMALL ANIMALS

TROPICAL & MARINE FISH

FRANKLIN PET CENTER INC.

FRANKLIN SQUARE'S COMPLETE PET CENTER

212 FRANKLIN AVE
FRANKLIN SQUARE NY 11010
516.775.8183

HOURS: MON-FRI (10^{am} - 8^{pm}), SAT (10^{am} - 6^{pm}), SUN (10^{am} - 5^{pm})

20% Discount on fish. 15% on all else.

New **Kissena Aquarium**
 鴻運水族館

46-30 Kissena Blvd., Flushing, NY 11355
 Tel: 718.358.0761
 (金城發超市正對面)
www.kissenaaquarium.com

10% Discount on everything.

Monster Aquarium inc
 風水魚

131-08 40th Road,
 Flushing, NY 11354
 T : 347.732.0373
monsteraquarium@hotmail.com

10% Discount on everything.

PACIFIC AQUARIUM & PET INC.
 46 Delancey Street, New York NY 10002
Pacificnyc.com
PacificAquarium@gmail.com
 Tel: 212-995-5895
 Fax: 212-995-8041

Exotic Marine, Fresh Water Fish & Plants
 Custom Aquarium, System & Maintenance
 Complete Line of Aquarium Supplies

Open 7 Days & All Holidays
 10:00 am - 7:00 pm Daily

10% Discount on everything.

 **Pets Warehouse®**

Everything For Your Pet

1550 Sunrise Highway
 Copiague, N.Y. 11726
 Tel: (631) 842-0400
 Fax: (631) 842-1476

Hours: 10-9 Mon. - Sat. • 10-6 Sun.
 E-Mail: Support@Pets-Warehouse.com
www.PetsWarehouse.com

10% Discount on fish.

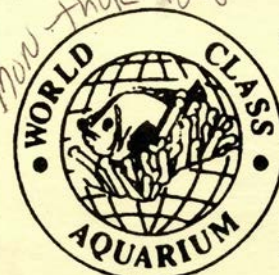
 **KHC Aquarium**

Your source for wholesale/retail saltwater and freshwater aquarium fish

(718) 888-7938

150-01 Northern Blvd.
 Flushing, NY 11354 (Basement)
KHCaquarium@gmail.com
www.KHCaquarium.com

10% Discount on everything.

 **WORLD CLASS AQUARIUM**

(718) 258-0653
www.worldclassaquarium.com

- *N.Y.'s Best Pet Shop
- *Custom Aquariums
- *Aquarium Maintenance
- *Marine Biologist on staff
- *Professional Consultation

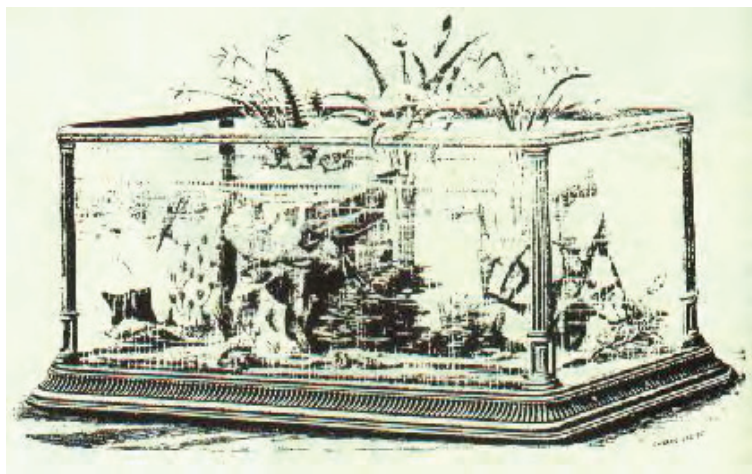
**2015 FLATBUSH AVE.
 BROOKLYN, NY 11234**
 Mon.-Sat. 10-7 Sun. 10-6

10% Discount on everything except 'on sale' items.



Searching For...

The Boston Aquarium Society is
looking to Borrow, Buy, or
Rent a 100-year old Antique
Aquarium.



Next year will be the 100th anniversary of our club and we would like to celebrate it by exhibiting an authentic 1916 aquarium. If anyone has any thoughts or ideas and would like to contribute to this project please weigh in.

Please email: Bill Gill at bostonbreeder@bostonguppyclub.com or Russ McAndrews at marksdonnam@hotmail.com

CORAL AQUARIUM

Your Holistic Pet Food Center
In Jackson Heights

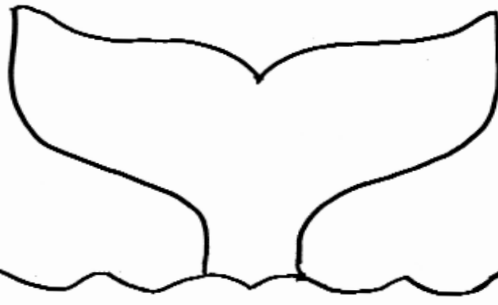


- Freshwater Fish •Saltwater Fish •Live Corals •Fancy Goldfish
- Live Plants •Food & Supplies for All Pets
- Extensive Selection of Holistic Dog & Cat Foods

Open Monday-Friday 10 am – 8 pm
Saturday 10 am – 7 pm & Sunday 12 pm – 6 pm

ALL MAJOR CREDIT CARDS ACCEPTED

75-05 Roosevelt Avenue, Jackson Heights
718-429-3934



WHALE WATCHING TRIP

Scheduled for Friday, July 24

From Noon - 4:00 PM

From Breezy Point, Rockaway Queens.

Aboard the American Princess.

**We have a group rate of \$38 for adults,
\$25 for 5 to 12 years of age.**

**We need to have a definite count and all paid,
no later than July 10.**

If we have 90 people we can have the entire boat for our trip!

The boat can take up to 150 people.

There is a snack bar on board so you cannot bring coolers or beverages,
although you can bring sandwiches.

There's free parking at the dock.

Brooklyn members contact – Joe Graffagnino

Queens members contact – Dan Radebaugh

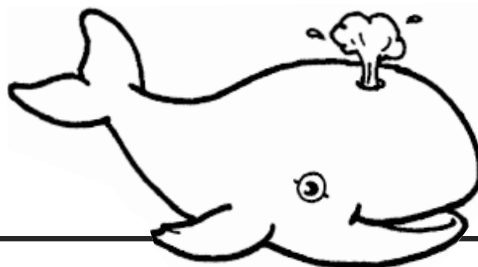
New Jersey members contact – Frank Policastro

Nassau County members contact – Harry Faustmann

Lancaster members contact – Kurt Johnston

The boat web site is

WWW.AmericanPrincessCruises.com





GCAS Happenings

July

Last Month's Bowl Show Winners:

1 MARIO BENGICION	BLACK & WHITE KOI
2 RICHARD WAIZMAN	BLUE ACARA
3 RICHARD WAIZMAN	RED KOI

UNOFFICIAL 2015 BOWL SHOW TOTALS:

MARIO BENGICION	19	RICHARD WAIZMAN	17
-----------------	----	-----------------	----

A WARM WELCOME BACK TO RENEWING GCAS MEMBER RODERICK MOSLEY!

A SPECIAL WELCOME TO NEW GCAS MEMBERS NICHOLAS CAPUTO, JACOB COLEMAN, BASIL HOLUBIS, AND ARTHUR PLATT!

Meeting times and locations of some of the aquarium societies in the Metropolitan New York City area:

GREATER CITY AQUARIUM SOCIETY

Next Meeting: August 5, 2015

Speaker: None

Event: *Silent Auction/Flea Market*

Meets: Meets the first Wednesday of the month (except January & February) at 7:30pm:
Queens Botanical Garden

43-50 Main Street - Flushing, NY

Contact: Dan Radebaugh (347) 866-1107

Email: gcas@earthlink.net

Website: <http://www.greatercity.org>

BIG APPLE GUPPY CLUB

Meets: Last Tuesday each month (except Jan, Feb, July, and August) at 7:30-10:00pm.

Alley Pond Environmental Ctr.: 228-06 Northern Blvd.

Contact: Donald Curtin (718) 631-0538

BROOKLYN AQUARIUM SOCIETY

Next Meeting: September 11, 2015

Event: Rick Borstein

Topic: *60 Tips in 60 Minutes*

Meets: 2nd Friday of the month (except July and August) at 7:30pm:

NY Aquarium - Education Hall, Brooklyn, NY

Call: BAS Events Hotline: (718) 837-4455

Website: <http://www.brooklynaquariumsociety.org>

LONG ISLAND AQUARIUM SOCIETY

Next Meeting: September 18, 2015

Speaker: TBA

Topic: TBA

Meets: 3rd Fridays (except July and August) 8:00pm.

Room 120 in Endeavor Hall on the State University at Stony Brook Campus, Stony Brook, NY

Email: Margaret Peterson - president@liasonline.org

Website: <http://liasonline.org/>

EAST COAST GUPPY ASSOCIATION

Meets: 2nd Tuesday of each month at 8:00 pm.

Alley Pond Environmental Ctr.: 228-06 Northern Blvd.

Contact: Gene Baudier (631) 345-6399

NASSAU COUNTY AQUARIUM SOCIETY

Next Meeting: September 9, 2015

Speaker: TBD

Topic: TBA

Meets: 2nd Tuesday of the month (except July and August) at 7:30 PM

Molloy College - Kellenberg Hall ~1000 Hempstead Ave - Rockville Centre, NY

Contact: Mike Foran (516) 798-6766

Website: <http://www.ncasweb.org>

NORTH JERSEY AQUARIUM SOCIETY

Next Meeting: September 15, 2015

Speaker: Larry Jinks

Topic: *Breeding Fish*

Meets at: Quality Inn, 10 Polito Ave, Lyndhurst NJ

Contact: NJAS Hotline at (732) 332-1392

Email: tcoletti@obius.jnj.com

Website: <http://www.njas.net/>

NORWALK AQUARIUM SOCIETY

Next Meeting: August 20, 2015

Speaker: Larry Jinks

Topic: *MAINTAINING AND BREEDING CATFISH*

Meets: 8:00 P.M. - 3rd Thursday of each month except for July & December at: Earthplace - the Nature Discovery Center - Westport, CT

Contact: Sal Silvestri

Call our toll free number (866) 219-4NAS

Email: salsilv44@yahoo.com

Website: <http://norwalkas.org/>

True Blue Watercolors

A series by "The Undergravel Reporter"

In spite of popular demand to the contrary, this humor and information column continues. As usual, it does NOT necessarily represent the opinions of the Editor, or of the Greater City Aquarium Society.

Since this month's column is in our July issue, I figure that introducing you to new a red, white, and blue aquatic species is appropriate. So, I present for your amusement and edification, *Cherax pulcher*, the blue crayfish from West Papua, Indonesia.

Christian writes that while this crayfish is collected for sale as part of the global aquarium trade, the bigger threat to its existence is that it is very popular as a food item for people across the island, and, of course as in many other areas of the world, pollution is also a concern.²

As the photo on this page demonstrates, it is quite beautiful ("*pulcher*" means beautiful). However, it is already considered to be at risk for extinction in the wild.

Christian also states that local collectors in the area have told him that the populations of the species have been decreasing in the last few years. He is of the opinion that the continued collection of these crayfish for the trade is not a sustainable practice, and he is hoping that identifying them as a new species will



Cherax pulcher

This is a newly described species (German researcher, Christian Lukhaup, described it as a new species and published his findings in the journal, *ZooKeys* only just this May)¹.

force someone to devise a conservation management plan that will help to preserve them.

Maybe it's just me, but "Save the Crayfish" does not sound like a very popular rallying cry.



References

¹ ZooKeys 502: 1-10 (04 May 2015) doi: 10.3897/zookeys.502.9800

² <http://www.mirror.co.uk/news/world-news/new-species-crayfish-might-red-5763877>



Fin Fun



Know Thy Cory!

There are many species of *Corydoras*. Can you correctly match the scientific names on the left with the “common” name associated with it (at least according to fishbase.org)?

Scientific Name	Common Name
<i>Corydoras acutus</i>	Skunk corydoras
<i>Corydoras ambiacus</i>	Sailfin corydoras
<i>Corydoras aeneus</i>	Spotback corydoras
<i>Corydoras arcuatus</i>	Peppered corydoras
<i>Corydoras barbatus</i>	Pinkthroat corydoras
<i>Corydoras blochi</i>	Pretty corydoras
<i>Corydoras macropterus</i>	Banded corydoras
<i>Corydoras paleatus</i>	Spotted corydoras
<i>Corydoras pulcher</i>	Blacktop corydoras
<i>Corydoras spilurus</i>	Bronze corydoras

Source: <http://fishbase.org/>

Solution to our last puzzle: **You Need More Than Fish And Water**

Q R H E A T E R Y D S	AIRSTONE CANISTER CANOPY CAVE CHILLER CONDITIONER FLAKES HEATER IMPELLER NET SKIMMER STAND SPONGE SUBSTRATE THERMOMETER
R E N O I T I D N O C	
E T S T R N V A Z A H	
L E P C E J T C N N I	
L M O T N S U O A G L	
E O N U O N P L E V L	
P M G C T Y V G Q Q E	
M R E T S I N A C U R	
I E T A R T S B U S G	
G H S K I M M E R I D	
E T F L A K E S F T T	



"The Cichlids are Coming!"
"The Cichlids are Coming!"

Coming this summer
to

New England

Where Cichlids are Revered



ACA 2015 Convention

The Sheraton Hotel - Springfield, Massachusetts

July 30 — August 2, 2015

Hosted by

New England Cichlid Association



Vendor Room Show Competition
Hospitality Suite Kids' Tank Decorating
Boston Day Trip Old Sturbridge Village
Banquet Giant Sunday Cichlid Auction



Speakers:

Wayne Leibel Laif DeMason Oliver Lucanus Ad Konings
Dr. Paul Loiselle Rusty Wessel Al Sabetta Jaap-Jan de Greef
Charley Grimes Dr. Hubert Kuerzinger

To register, reserve a room, become a sponsor, or volunteer to help, go to:

ACAconvention2015.com

Proudly sponsored by



