

modern AQUARIUM



May 2017
volume XXIV
number 3

Greater City Aquarium Society - New York

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Series III Vol. XXIV, No. 3 May, 2017

ON THE COVER

Our cover photo this month features a tank of Endler's livebearers, *Poecilia wingei*. For a bemused look at this very attractive little fish, see Sue Priest's article, "A Tank Full of Questions," on page 7.

Photo by Joe Gurrado

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From the Editor

by Dan Radebaugh

As I look through this issue it seems to me that it touches a lot of bases, and ones that we won't all necessarily agree about. For instance, in Sue Priest's small article on a small fish (see "A Tank Full of Questions" on page 7) Sue raises several interesting questions about the Endler's livebearer, *Poecilia wingei*, as well as a rather larger question.

Our cover photo shows a beautiful tank of Endler's. If you go online you can find photos of these, as well as other "Endler's" species (?), many of which are quite beautiful. The "tiger Endler's" for example, a cross between the Endler's and a guppy, is now the version of the Endler's most commonly found in pet shops, but there are others as well. So the larger question Sue alludes to is why is this so?

The "tiger Endler's" is of course not the only hybrid in the hobby. The American Cichlid Association has been grappling with the hybrid issue for some years now. My interpretation of their current stance is that, while decrying the practice, they feel they must to some degree accept the hybrids or face losing members, rather like the pet shop owners who sell hybrids because they can be presented as something "new and different."

And yet there is certainly no current shortage of "real" new species in the hobby. Look at the current explosion of new catfish becoming available. And as to cichlids, who could possibly have the tank space to keep even one each of all of the available species? So there has to be more to this question than simply crass commercialism, though that certainly should not be completely downplayed.

Is it that we just like to mess with stuff? Looking at some of the other species we keep as "friends and companions" you have to wonder. A whole lot of the dogs we keep would certainly not survive without our care. Many would not even be able to reproduce. There are dog breeds that require Caesarian delivery because the heads we have designed for them are too big to pass through the birth canal. Regular house cats are capable of surviving in just about any habitat on the planet, but now we have cleverly designed hairless breeds pretty much incapable of surviving anywhere other than in our homes. In our hobby look at goldfish, another very hardy species. Many of the highly prized varieties can barely swim even when they *don't* have serious congenital air bladder problems. This is good? How? For whom?

Anyway, moving on with the issue, Steve Sica profiles a marine fish that piqued his curiosity while



diving in Key Largo. See "The Solitary Spadefish" on page 9, where Steve speculates on why he found this normally schooling fish hanging out by itself. Jules Birnbaum contributes a welcome review of the recent NEC convention on page 12, and Elliot Oshins treats us to another of his fictional (I think) fishy encounters in "A Happy Relocation" on page 14.

Snails are often a subject for disagreement among aquarists, and not just here at Greater City. Our exchange article this month is "Snails in the Planted Tank: Boon or Bane?" Check it out on page 16. You'll find "Pictures from Our Last Meeting" on page 18, and our Fishy Friends Photos on page 21.

The issue wraps up with "Eat Sh*t and Prosper" by The Undergravel Reporter, and our Fin Fun puzzle is "Crossed Fintage" on page 28.

By the way, last month we received a few Caption Contest entries without names on them. It's pretty tough to win if we don't know who you are. Good luck next time!

Remember, we need more articles! We *always* need more 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 need a lot of articles.

Share your experience with us. Write about your successes! Maybe even mention some of your failures—sometimes those are more instructive than the successes. If you're a little unsure about the state of your writing technique, don't worry—that's why editors exist.

If *you* have an article, photo, or drawing that you'd like to submit for inclusion in *Modern Aquarium*, it's easy to do! 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! So will our members!





GCAS Programs 2017

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 accompany each meeting.

March 1	Joseph Ferdenzi <i>Killifish Demystified</i>
April 5	Michael Marcotrigiano <i>Breeding Show Guppies</i>
May 3	Michael Lucas <i>Butterflies in the Water: Discovering Hydrophlox Shiners</i>
June 7	Joseph Graffagnino <i>My New Fishroom</i>
July 5	TBA TBD
August 2	Silent Auction
September 6	Emily Voigt <i>The Dragon Behind The Glass</i>
October 4	TBA TBD
November 1	TBA TBD
December 6	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 2017 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

To Our New and Senior Members

Welcome to this month's Modern Aquarium magazine. We are excited to give you a glimpse of things to come in this great and unique magazine that we publish ten times a year. I'm always eager to read each new issue; I truly enjoy it! My hope is that you find the contents so valuable and meaningful that you save your issues and return to them for reference from time to time. You may find some new ideas, or perhaps come across something new and exciting, or maybe that one small thing that leads to a triumph when you breed that new fish, or an old fish that you've been trying to spawn for a long time. I want you to find timeless inspiration and a good dose of confidence to tune into and trust your instincts. You can do it! The President says so, and I'm not talking about Trump.

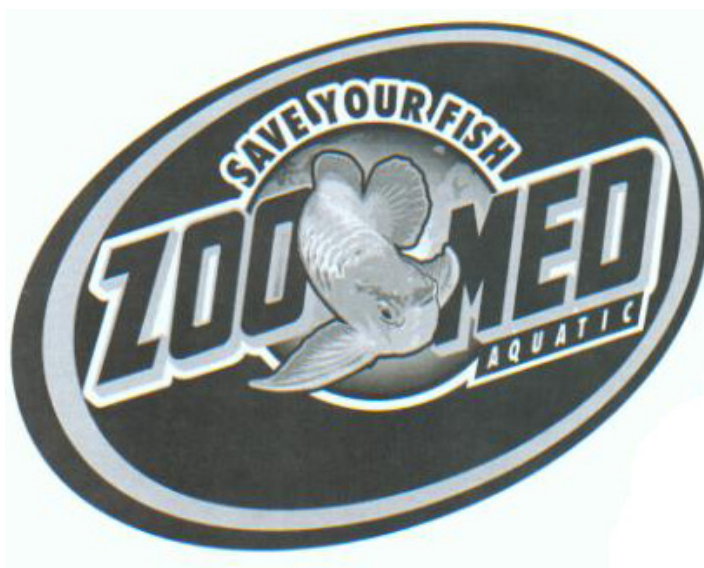
One of the things I most look forward to in this magazine is simply connecting with fellow aquarists from all walks and seasons of life, with different stories to share, and who have turned those stories into articles. Nearly everything you read in this magazine has been written by our members!

My current life pallet includes forty tanks. Twenty-eight are occupied by fish, the rest is a rather sorry looking collection of dried up algae and Java moss, the aftermath of an operation that left me on crutches and unable to continue my fishkeeping tasks. A positive aspect to this setback though, is that it has inspired an idea for a program, "The Little Tank of Horror." On a more sober note, I am striving to create an enjoyable environment in my fishroom, but it remains a work in progress. I wouldn't change a thing, but in all the business and bustle I sometimes find myself craving simplicity. I want to simplify, and focus on the things that really matter, like fish breeding. And I want to do those things that really matter—the ordinary, everyday things—really well.

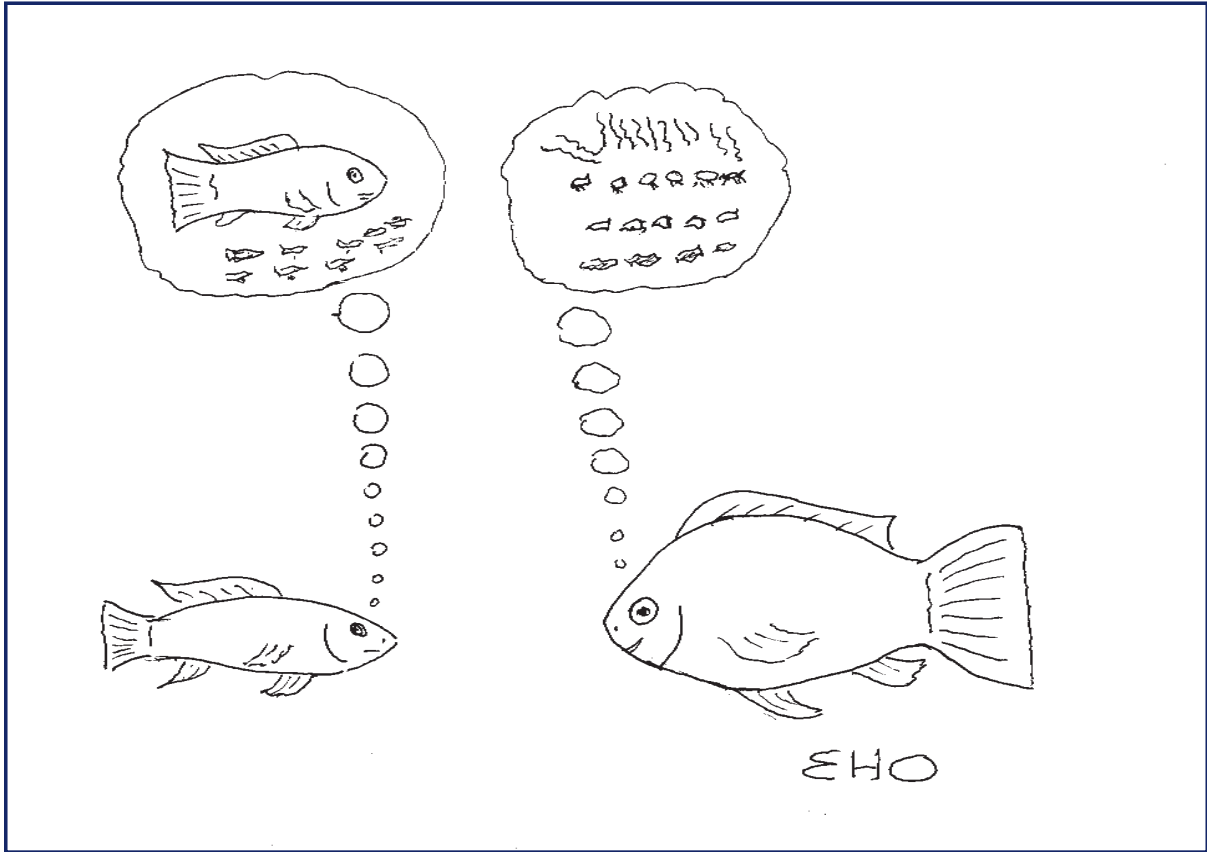
For me, a homebody, I have to set aside time for the things that I really love: gambling, gardening, and all the things needed to keep my home in shape. Whether I'm breeding the same fish for the twentieth time, tending to a new plant that I've never grown before, or sprucing up my fantasies for next season, my life is most balanced and fulfilling when I take the time to slow down and actually enjoy these simple things.

I hope this magazine strikes a chord for you, as a resource that may encourage you try something new, and as a guide that pushes you to see the beauty in all the things you are already doing. So find a cozy spot, settle in for a while, and start reading!

Horst



April's Caption Winner: Tom Warns



Of course I love you!

TONIGHT'S SPEAKER: Michael Lucas, on

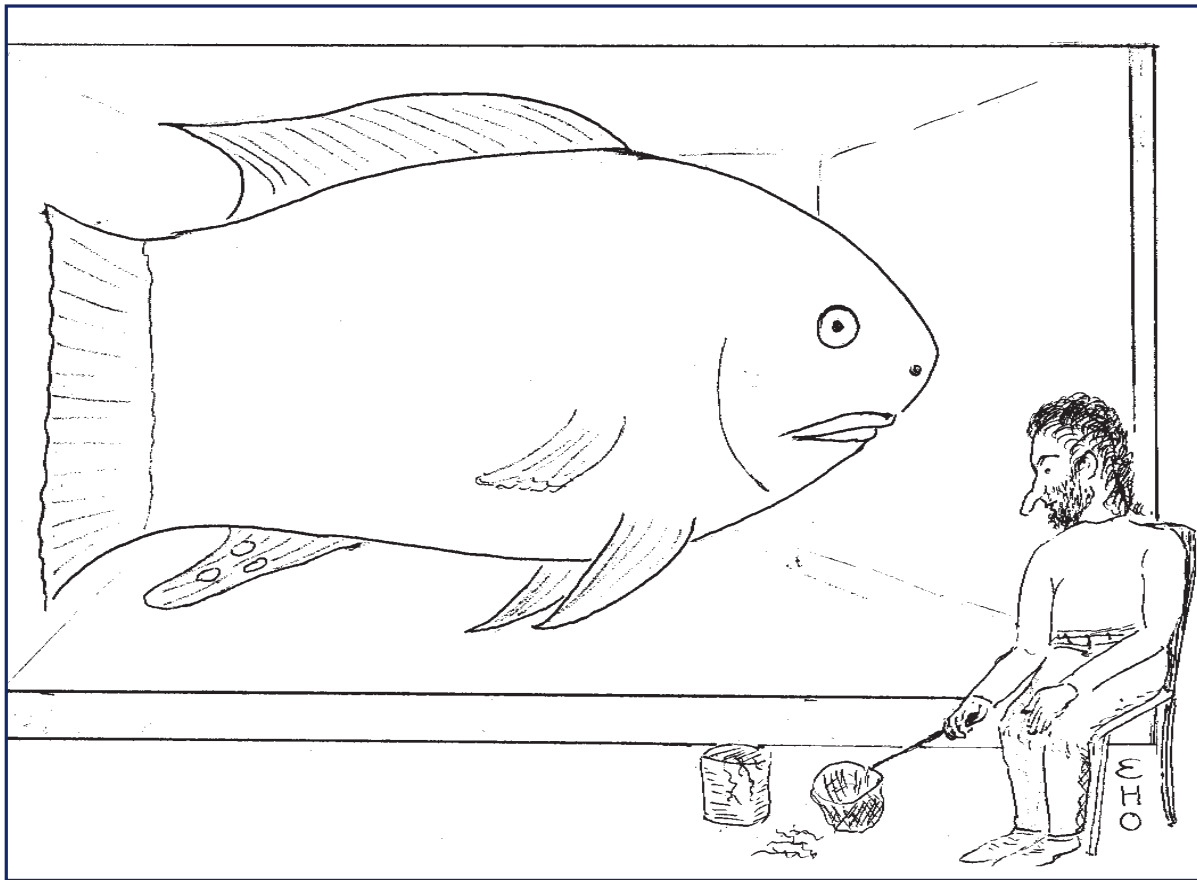
Butterflies in the Water: Discovering Hydrophlox Shiners

Michael Lucas is the eastern NY representative for NANFA (North American Native Fishes Association). He has been collecting, keeping, and appreciating native fishes since he was a child. Mike says he's always amazed at what can be found in our local waters, as well as by how relatively obscure our native fishes are. Mike is the guy with the gray hair, in the lower left of the photo.



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:

A Tank Full Of Questions

by Sue Priest
photo by Al Priest

Ever since 2004 there has been a small tank full of Endler's livebearers (*Poecelia wingei*) in a corner of my livingroom. My daily visits with them are an endless source of fascination as well as an endless source of enjoyment. They raise many questions in my mind, but we don't speak the same language, so I can't ask them for the answers.

My first question is, how long do they live? After all these years, I still haven't got a clue!

Next, what happens to the female after she has delivered her fry? Does she store sperm like many of the other livebearers? How long is her gestation period? Can she go on to produce more fry, or does delivering one batch of fry bring her to the end of her life span?

I also wonder, is it typical to have more males than females, as most often seems to be the case in my tank?

There never seems to be an over abundance of fish. The population just ebbs and flows. Is that typical as well?

I never find any dead fish. Is that because the live ones consume the carcasses, or do the small snails (which are herbivorous) perform this cleanup duty?

Let me follow up with a few of the things I already know about them. They are active if not frisky. They occupy every level of their tank. They don't rush to the front at feeding time. Rather, they rise to the surface in anticipation of their meal.

The males are as colorful as a box of crayons. The fry are the size of a human eyelash (just imagine a brain or a mouth the size of the period at the end of this sentence). The caudal fins on the males look like lyre tails, but in actuality there is a transparent membrane which occupies the center space.

The tank they live in has been occupied by many different fish over the past twenty six years, but the tenure of the Endler's has been the longest. Theirs is the only tank under my care which has graduated to LED lighting. Even though it happens very often, I have yet to observe a live birth (I think the fry are most often born during the night). The adults don't cannibalize their fry.

My last question has to do with the fishkeepers, and not the fish themselves. Where does the insatiable urge to hybridize these beautiful little fish come from? Do people not understand that a "tiger Endler's" is not an Endler's? Most hybridized fish don't breed true, and they will revert back to their original features after a couple of generations. I hope that we can count on this aspect of nature to preserve their purity for the future.

As for me, these fish will always have an air of mystery about them, as well as a few unanswered questions. All of that only adds to their charm!



Endler's livebearer (*Poecelia wingei*)
Mature male in foreground





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The Solitary Spadefish

Story and Photos by Stephen Sica

We were unable to attend the 2014 annual Halloween divers' reunion in Key Largo because it coincided with my high school reunion, so in September we drove to Florida to visit Donna's sister in Clearwater. We took the opportunity to drive to Key Largo, where we stayed for four nights.

It rained every day except our first full day, a Saturday. Luckily, the weather was beautiful and we were able to spend the morning diving. It turned out that the dive shop was preparing to upgrade its boat. It would be out of service for several weeks beginning Monday. This overhaul was to replace the engines with brand new lightweight aluminum engines that would drastically reduce the boat's weight, thereby increasing its range and saving a great deal of money on fuel.

I always try to take as many photographs as possible for post dive review. I know that if you take many photographs, you have a better chance of finding a few good ones. Upon reviewing my photos back home, I noticed that I had photographed a lone Atlantic spadefish loitering in the vicinity of the Benwood shipwreck. Since I often try to find originality in the common, you may ask why it is strange or unique that I observed a solitary spadefish. My response is

that it was the very first time that I had observed this normally schooling fish alone. There were no other spadefish either on or near the wreck. I realize that sooner or later a schooling fish is going to be observed without its school, but I wonder why? Is it merely coincidence? Was its school swimming around in the murk where I didn't observe it? Does this specific fish belong to a school? Without interviewing the

fish (even if this were really possible) the answer is unknown. Although Donna can usually read my mind at will, we were diving with our nephew who was unfamiliar with the underwater topography of this dive site. After swimming around and over the wreck several times, we were beginning to run low on air. Donna and I are light breathers. For shallow dive sites, usually fifty feet or less, we dive with 63 cubic foot cylinders versus the standard 80. Our smaller air supply may have resulted in Donna being busy plotting

our underwater swim back to the dive boat, but in this instance it was the wrong boat. I was trying to prevent her from embarrassing herself by swimming to the wrong boat. If I could get Donna's attention, my intention was to coax her to try to interview the spadefish for a future article (assuming that I garner sufficient ambition to write one).



Your average spadefish is usually observed swimming in a school on a reef or shipwreck. They seem to be attracted to structures that offer a high relief. My theory is that large objects like these offer protection. Reefs and underwater wrecks are attractive to sea life. This school enjoys a sunken tanker off New Providence Island in the Bahamas.



Swimming around the wreck of the USS Benwood in Key Largo last September I came across this Atlantic spadefish. I began searching for its school and was surprised to see that it was alone. I had seen a small school of spadefish on this wreck in the past. What happened to the school? Was this fish a (former) member of that school?



A close-up shows that the upper portion of this spadefish's tail is damaged—actually missing. I wonder what adventure was responsible for it?



This close-up shows a blunt nose. I estimate that the fish weighs about 8 to 10 pounds, with a fairly solid body for an angel-like fish. All spadefish are in their own genus, with no relationship to angelfish even though their body shape is very similar. Spadefish have a thicker body. Their appearance and coloring are to me less attractive than angelfish.

This spadefish had the appearance of a mature fish even though it was just an average sized adult. It looked to be longer lived because its tail was in poor shape. Did you notice the tail in any of the photos? Well if you didn't, take a look at the upper section of the fish's tail. What adventures did this fish experience for its tail to be in this poor a condition? Anyway, it made me think that this was an older fish that had been around the pond a time or two.

I can believe that this solitary spadefish had been the leader of its school until it was defeated and outcast by a younger stronger male. But wait a minute. Is a school leader male or female? Does it make any difference in the world of schooling fishes? Are all the fish in a school leaders? Do female animals have more of a maternal instinct that could make a female a better leader? Many female fish are larger (and stronger?) than males. A female southern stingray is twice or more the size of a male.

On our swim back to the boat I was on the lookout for other spadefish in the area to make sure that it wasn't part of a school. I did not see any, but I was concentrating on finding our dive boat. As the old-timers used to remind us, the undersides of all those hulls look alike from below. My secret is to identify the boat by its ladder. I tried to attune Donna to this concept, but sometimes she is too busy looking for the nearest boat. If it's early in the day, prior to other boats heading out to visit the popular dive sites, you have less chance of finding the wrong boat. Likewise, if you miss your boat you have less chance of finding any boat! In that case, the only way to find the boat is to surface and scan above the wave tops. If you are surfacing from a deeper dive, you don't want to actually surface except in case of emergency. If the boat is a hundred yards away and you have to swim for it on the surface through waves

and current, it is more difficult than submerging again and swimming underwater. Often it's difficult to submerge after surfacing because you have become more buoyant from using up the air in your cylinder. The gas in a standard size cylinder weighs about five to six pounds. Fortunately, we don't often have this situation. If we do, I surface and point out the boat's direction to Donna. Then I try to swim toward it about five feet below the surface, pointing in the direction that we should swim. Another trick is to try to find another diver from our boat and follow him or her, hoping that he knows where the boat is or can find it.

Recognizing divers underwater is difficult. Many years ago in Islamorada in the Florida Keys, we were diving with an experienced instructor and a student whom he was training. He was taking her on what is described as an open water tour. It's a dive in which you are observed to determine if you can handle routine situations. The four of us were swimming in fifty feet of water. Running low on air, it was time to head back to the boat, which I thought we were doing. I wasn't paying much attention because I assumed that an experienced local instructor knew the seascapes. Even though I knew that you should not depend on someone else, it's easy to fall into lazy behavior. We swam an awful lot before we lucked out and found the boat. It's stressful when you are running out of air and swimming in a current when you are not particularly athletic. I like to recall some of our early adventures, because when you reflect back upon them it has always been a "piece of cake," as I like to say.

You always hope that you have more time left on the planet to try and live a better life. But as I also like to say, "What has any of this to do with spadefish?" I don't know, but probably nothing, so let's find a way to wrap up this story.

Did you know that the Atlantic spadefish, *Chaetodipterus faber*, is almost entirely black when newborn? They often mimic drifting plant debris by floating on one side. Like most young fish, they live close to shore. The average size of an adult is about twelve to eighteen inches, but they may reach three feet and weigh twenty pounds. Adults are silvery with



This specimen allowed me to closely approach it. Some of this fish's finnage, color banding are evident, along with a nice close-up of its profile.

black vertical bars. They usually swim in small schools in the open water and inhabit the shallows down to seventy feet. Wrecks are attractive to spadefish, and usually home to schools. Dive magazines with articles about shipwrecks usually contain photos of the subject wreck adorned by a small school of spadefish. This is especially true of Florida's panhandle in the Gulf of Mexico.

I advise you to be on the lookout for a spadefish with a "broken" tail. Maybe it will ride north on the Gulf Stream and become famous someday. Can a fish give an autograph, or even hold a pen in its mouth? Now **that** would make for a good story!



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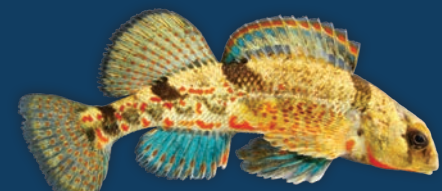



The 2017 NANFA Convention

June 8–13, Meramec State Park, Missouri

- Meramec River drainage is home to over 120 fish species, including the Meramec Saddled Darter (below)
- Boat trip to Pelican Island Preserve on Missouri River, with opportunities for collecting, fishing & trawling, plus an evening cookout on the island
- Collecting in large rivers & small streams

- Presentations by native fish experts
- Annual NANFA auction and banquet
- Fish photography
- Fellowship with other native fish fans, including aquarium keepers, anglers, snorkelers, biologists and more
- Located an hour from St. Louis airport
- Hotel & cabins on site (reserve soon!)





REGISTER NOW! www.nanfa.org/convention/2017.shtml

The 2017 NEC Convention

by Jules Birnbaum

This year's annual convention was on March 10 through 12. The convention was held at the Sheridan in Rocky Hill, Connecticut (just south of Hartford). This hotel and staff made me feel very much at home. It is only a 2-hour drive from our home on Long Island.

Joe Ferdenzi was nice enough to pick me up and do the driving. We had the pleasure of driving in a brand new car, and we made the trip in just under two hours (obeying the speed limits).

The NEC (North East Council), of which GCAS is a member club, has been running this convention for many years, and though they were all volunteers the organizers were very professional. The reception desk was ready with our packets containing our name tags and all the things we would need during the convention.

After a nice lunch in the hotel restaurant I went straight to the vendors' room. This room had everything, including live plants, new equipment, fine aquarium books, and of course many tanks of fish. We got to talk to many vendors about their products. There was a small tank design contest where you could

vote for the winner. Although it was tough to judge all the great designs, I voted for the eventual winner.

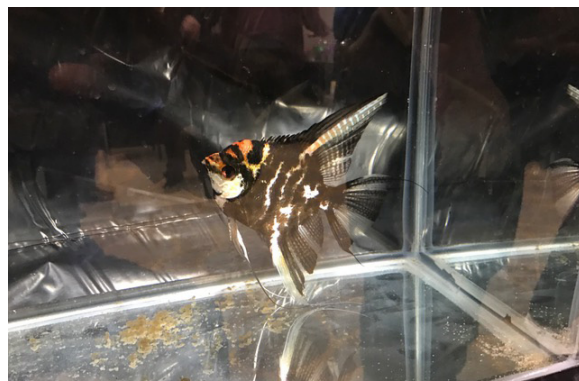
This large room also had a silent auction going on, with about 30 tanks of fish, some very rare. In another room there was a guppy exhibition and contest with over 100 small tanks. In the same room there also was a cichlid exhibition and competition. I was amazed by an angel fish and a discus. Both of these fantastic looking fish won first place in their categories.

During the day there were a good number of presentations going on, all by top people in the tropical fish hobby. I chose two one-hour presentations, one on betta genetics and the other on livebearer genetics. Both were amazing, but a little too technical for what I'm doing in my fish room.

Saturday evening was banquet night. I changed my shirt for this event (Hah!). I sat at a table with fellow GCAS members, but did get to meet a young couple from Vermont, who owned two restaurants and had just moved into a new home. Their fishroom was just being taking shape, and they did pick up some fish at the Sunday auction to take home.



Vendors' room with large selection of merchandise for sale.



Outstanding winning angelfish in the cichlid competition.



Vendors' room discus for sale at discount prices.



Magnificent winning discus in the cichlid competition.



Betta genetics presentation by Gerald Griffin.



Huge Sunday action with Joe Ferdenzi as auctioneer.



Bidders readying their bidding cards.



Cichlid tanks set up for the competition.



Livebearer genetics presentation with entertainment by the presenter, Bill Allen.



Youngest auction attendees.

Sunday was a giant auction day, and I mean giant. It started at 11 AM and was still going when we left for home at 3 PM. I was told this auction was expected to go on until around 7 PM. By my count there were approximately 300 people in attendance. During the event four auctioneers took turns, and our own Joe Ferdenzi was one of them.

As usual, he did a great job. The auction was a great chance to pick up fish you wanted at bargain prices .

I highly recommend you attend next year's convention. It is a place to meet new friends, mingle with giants of the hobby, learn more, and of course recharge your batteries. I hope you enjoy the pictures I took.



A Happy Relocation

by Elliot Oshins

Moving into a new neighborhood was a little strange, and it scared me. I lived in Queens all of my life, and at the age of 34 I thought it was time I made the big move into Manhattan. I moved into an apartment on 76th Street off Second Avenue in an old walk-up building owned by the uncle of my friend Richard, whom I know from work. Richard knew that I was looking to move into Manhattan, and when he found out that someone from his uncle's building was transferring his job to Los Angeles and moving out, he asked his uncle to hold the apartment for me. As I was friendly with Richard's uncle, I think it helped the situation.

As it quickly became evident, the decision to move into Manhattan was a good one, as I worked there and my commute was faster and easier. I currently work for a publishing house downtown, around five minutes from the Wall Street area.

I live a very simple life. I'm still single, and don't have any attachments at the moment. My taste in women is somewhat unusual: I like tall women—the taller the better. Since I am only 5-foot 5-inches tall, this creates a little bit of a problem, and sometimes an impossible situation.

As you can imagine, I don't date much, so I read biographies as a pastime. I can actually tell you what George Washington ate every morning for breakfast. (Only joking.)

I also find I watch too much TV news. I'm what you would call a real news junkie. After watching the news each night, I retire and go to sleep. If I do stay up late, I find some mindless sitcom to watch, but I feel that most of them are a waste of time. If I'm lucky enough, I find a good old movie, but I never count on it.

My move to Manhattan proved to be a good one. There's always something for me to see and do. Museums are all over the city, and there are interesting classes to take at The New School. However, one of my great passions in life is the hobby of tropical fish.

When I started to arrange my new bachelor pad, I realized that I did not have enough room to set up more than one tank, so I set up a 55-gallon tank to house my *Ophthalmotilapia ventralis*. These fish are found in Lake Tanganyika, at the southern end of the lake. The females are gray in color and the males are a light bluish. The ventrals are quite long on the male. I keep my tank's temperature at 75° to 79°, and it has a sandy bottom with some artificial rocks that have caves built in. I notice that the fish like to swim around the rocks to keep themselves entertained. Breeding the fish is also very interesting. I observe the males constructing a depression in the sand so

that the females have a place to lay their eggs. The female then takes the eggs in her mouth. "During their courtship the spatulate of the ventral fins are long and folded together to form an egg dummy. Being a mouth brooder, she goes after the dummy eggs and then the male fertilizes the eggs¹. My fish have given me quite a few spawns, which I always welcome.

I bought the fish at an auction in New Jersey about a year ago. I gave my friend

the East Coast Maven a male and a few females, and I know they will be in good hands with him.

Once I get my apartment organized and fully set up, I know that I will have a more enjoyable and richer social life. Even though I will miss the extra tanks that I had in my old apartment, the Big Apple is calling me.

Last week, Richard and I were having lunch at a diner near my new apartment, when a very attractive young woman walked over to our table. She said hello to Richard, and he invited her to sit down and join us. Richard said, "Marsha, I would like to introduce you to Tom, your new upstairs neighbor I told you about." She smiled and gave me her hand to shake, and told me that she worked for an advertising agency about 20 blocks south of us. Marsha was about five-foot seven, very attractive, and had a very cute southern accent. The three of us enjoyed chatting and having lunch together, and then Marsha said that



she had to get back to work. We all said our goodbyes and she left. Richard asked me what I thought of her. I said that I thought she was very pretty, and that I thought her southern accent was very cute. He then asked me if I would consider going out on a date with her. I said, "Sure," even though I thought to myself, "she's a little short for me." But I definitely would be a happy camper if she said yes to my asking her out on a date. So I said to Richard, "If you have no interest in dating her, could you put in a good word for

me? I can always wear my cowboy boots on a date. They make me an inch and a half taller." I then thought I could invite her up to see my fish tank, which is a real chick magnet, and then go out for a drink or dinner in the neighborhood. Who knows...time will tell.



¹ **Aquarian Atlas**, Book No. 3 by Dr. Rüdiger Riehl and Hans A. Baensch, p.824.



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Snails in the Planted Tank

Boon or Bane?

by Mark England

Love 'em or hate 'em—no one seems to be in the middle when it comes to snails in the aquarium. Snails make interesting pets, eat leftover food and algae, and add variety to the fish aquarium. They're inexpensive or free, easy to maintain, and hardy. Snail lovers maintain they don't eat healthy plants. What more could you want?

What else could we want? Some of us want them to die! All of them! For us they are loathsome, horrible pests that damage live plants and breed until the tank is covered with the things. They are a plague upon our tanks!

If viewed a bit more objectively there's truth on both sides, and a lot depends on the particular type of snail. Not all are evil; not all are angels. There are many, many species available in the hobby, and most aquarists are not particularly knowledgeable about which species they may have. All snails need hard water to maintain their shells. They're not fussy as to



Apple Snails

temperature or habitat. Snails generally make good scavengers, and will eat some algae types, but may eat live plants, too. Apple snails are popular, and several genera are grouped under this name or are also known as “mystery” snails. These will definitely eat leftover food and plants of all types and so will do best in a fish-only tank. Eggs are laid above the waterline, where they are easily visible, but removing what you see is not generally an effective means of population control. Perhaps the most desirable is the *spixi* species, *Asolene spixi*, which is known to prey on pond snail, ramshorns, and their own young.



Pond Snail

Pond snails are the worst, in my opinion. They're small, drab, and multiply faster than you can believe. Typically they're hitchhikers on aquatic plants or driftwood that trusting aquarists have not bothered to treat or quarantine. Even with conservative feeding,

they seem to find enough food to support a big enough population to always be in view on the front glass.



Ramshorn Snail

Ramshorn snails have much in common with pond snails. They breed quickly and can get out of hand even with careful feeding of your fish. Well known as plant eaters,

there is little to be said in their favor.

On the other hand, nerite snails have many fans. They are said not to eat plants, they don't breed in freshwater, and they are excellent at cleaning glass and plant leaves. The several species come in interesting varieties such as horned and zebra. They come from a tidal habitat, and are known to wander away from the tank, but can survive out of water for quite some time.



Malaysian Trumpet Snail

Malaysian trumpet snails, or MTS, as you may see them called on forums, are another snail in the good graces of plant lovers. They don't eat plants, and feed primarily on detritus. Nocturnal, they spend the day burrowing in the substrate, another benefit, as the burrowing aerates the substrate, helping to prevent anaerobic activity. These snails are livebearers and can multiply quickly.

If you haven't already guessed, I fall into the snail hating portion of the hobby, but there is one snail I love—the assassin snail. As its name implies, it is deadly....to other snails. It burrows into the bottom and



Nerite Snail

awaits a victim. Once another snail is spotted, it bursts into action (well, what passes for bursting in the snail world) and “chases” down the prey. They are quite efficient, and can rid a tank of every single pest snail in a short time.



Assassin Snail

Once the tank is rid of snails, the assassins are content to eat detritus, but they also love freeze dried tubifex or frozen bloodworms when they can get them. Some hobbyists say assassins will also take young shrimp, but I’ve not seen it happen.

Assassins are not the only means to control unwanted snails. There are a number of ways to prevent snails from getting into your aquarium even if you keep live plants. One of the benefits of tissue-cultured plants is that they’re snail free.

Another method is quarantining the plants and treating the quarantine tank with a snail remedy from your local fish store. These remedies usually contain copper in concentrations deadly to all invertebrates such as shrimp. Copper is the nuclear option. Copper is difficult to remove from substrate, so a bare tank is advised. Even if you don’t keep shrimp, I don’t suggest copper remedies for a planted tank.

Plant dips or baths are an effective means of ridding new plants of pests. There are a number of chemicals used, and all are more effective on snails than on snail eggs. You may wish to combine a bath with a quarantine period. Here are several methods:

- Bleach - one part plain bleach to 19 parts water for 2-3 minutes. Rinse well in water with dechlorinator added. There is risk of damage to delicate plants.
- Hydrogen peroxide - undiluted 3% solution for 5 minutes or a 1.5% solution for 15-30 minutes.
- Salt - aquarium or kosher salt, not table or iodized. One cup per gallon for 15-20 seconds. Do not put plant roots in the bath. Rinse well.
- Alum - 1 to 3 tbsp. per gallon for 2-3 hours, up to 12 hours. A less aggressive treatment that may not be effective on eggs.
- Potassium permanganate - this comes in many different strengths. Mix enough crystals in water to make a deep purple mixture. Soak the plants for 10-20 minutes and rinse in water with dechlorinator added.

If preventative measures fail and your tank is infested, there are still options. Assassin snails work well. There are also some fish species that eat

snails. Members of the loach and puffer families will eat them. In addition, you can trap snails by putting zucchini or cucumber pieces in the tank or a soda bottle and waiting for the snails to gather. Remove the food and the snails with it.

Flubendazole is a veterinary worm medicine that is effective on snails and said to be safe for shrimp. One quarter teaspoon of 10% powder to 20 gal. is an effective dose.

Besides copper, there is a second nuclear option recommended by some planted tank keepers. If you run CO2 in your tank, you can remove all fish and shrimp and increase the CO2 to about 3 times the recommended level, say 90 ppm. This is deadly to snails, fish, and shrimp. Simple aeration can bring down the levels after treatment.

When treating a tank with chemicals, exercise caution. A successful treatment may leave lots of dead snails to decompose which will need to be removed.

If you like snails, Malaysian trumpet snails and nerites seem to be the most problem free. If you love snails like I love snails, which is to say not at all, then you have choices. I recommend bleach dips and quarantine for incoming plants. For infestations in existing tanks, assassin snails work very well.

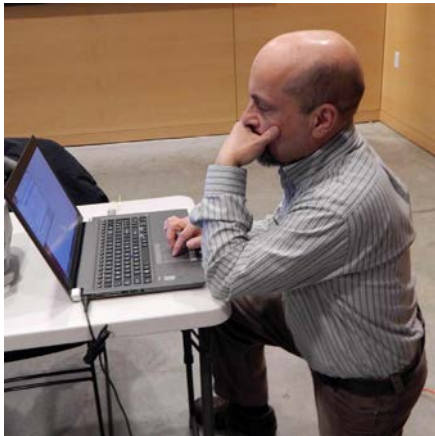


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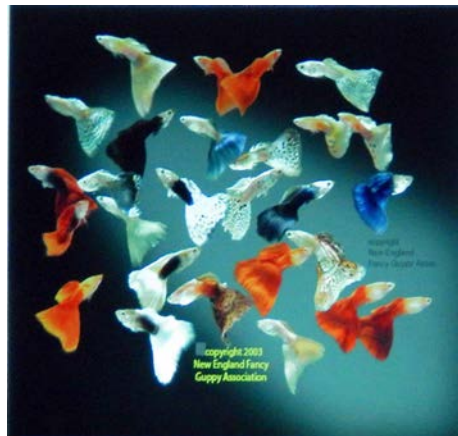
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<http://blogs.thatpetplace.com/thatfishblog/2011/07/20/dipping-plants-toeliminate-snails/#.VyjrV4-cHIU>

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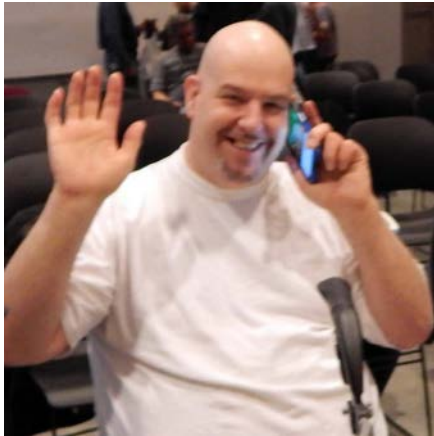
Photos by Sue Priest



**Michael Marcotrigiano
preps his program on Show Guppies**



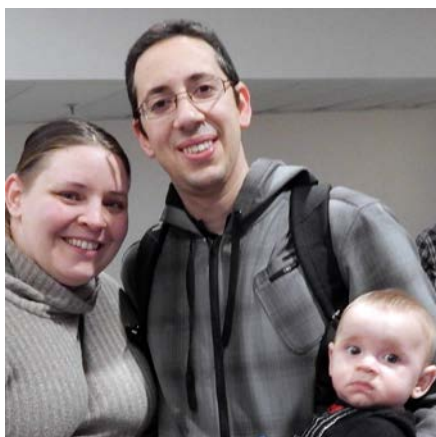
A collage of colorful guppies



**Robert Kolsky loves to
shop in our auctions**



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just ask Marsha**



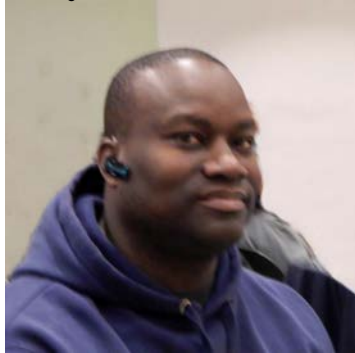
**Jillian, Andrew, and Matthew Jouan
brought their smiles**



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Our Last Meeting

We warmly welcome new members:



"Juice"



Marie and Ray LoPinto



Shane Hunt



Jr. Member Matthew Jouan

Bowl Show Winners:



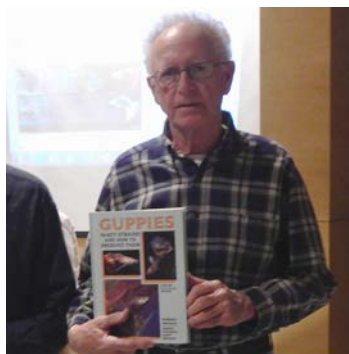
1st & 2nd Place: Bill Amely



3rd Place: Rich Waizman

Door Prize Winner:

Rod Ducase





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Fishy Friends' Photos

by Greater City Aquarium Society Fishy Friends

***B**elow are photo submissions to our “Fishy Friends” Facebook group. I’ve left the subjects 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 to tell you!*



Ron Webb



Joe Gurrado



Gilberto Soriano



Jeff Bollbach



Jillian Jouan



Gilberto Soriano



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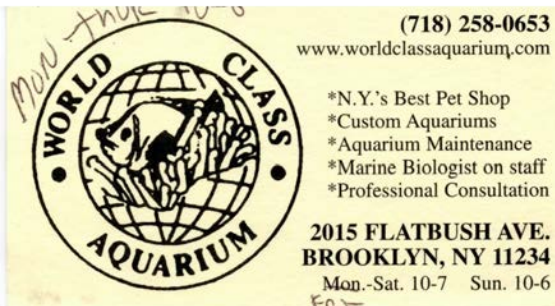


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Meeting Reminders



Almost every month at least one meeting reminder postcard is returned undelivered. Sometimes the member moved and just forgot to update his or her contact information with Greater City. Other times, well it's a mystery—the address was correct, but the Post Office marked it as “undeliverable.”

Unlike some aquarium societies, at Greater City there is never a charge for non-members to attend, there is no “bidder card fee” to bid on items in our monthly auctions, the refreshments are free to everyone at the meeting, and anyone can purchase raffle tickets. But membership does have its privileges, including this award winning magazine, door prize chances, the ability to participate in our bowl shows, and advance reminders of our meetings. If you have an e-mail account, please consider getting your meeting reminders by e-mail, instead of by postcard. You will be getting two notices (one a week in advance, the other a day in advance) instead of only one, and the chances of non-delivery are virtually none (unless you change your e-mail address). While it's a very small thing, you'll even help the environment by using less paper. An e-mail sign-up sheet is at the membership/Modern Aquarium table, or send an e-mail to gcas-webmaster@usa.net.



GCAS Classifieds

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FOR SALE: Frontosas -- all sizes.
Call Andy (718) 986-0886

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 20 gal tank w/hood, light, filter
Call 516-567-8641

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Fishroom: 15 X 26 – Almost 400 square feet. 10 Picture-window tanks, with built-in wall shelving underneath for storage. Room for more tanks, with pressurized air system throughout the room. Full sink (hot/cold) with work space; ceramic tile floor.

Pond Room: 12 X 16 – Almost 200 square feet. 300 gallon indoor pond for tropical fish.

Mag pump, ceramic tile floor, large cathedral windows, lots of light for growing plants. Gorgeous views. Great place to read the Sunday papers.



Rest of House: 2 BR, 2 BA, HUGE kitchen with 49 cabinets and drawers. All rooms huge, LR/desk area. Almost 2,000 square feet. Central A/C.

Climate: 340 sunny days last year. Mild winters with absolutely NO snow shoveling.

Location: Truth Or Consequences, New Mexico. Great name, huh? Was formerly called Hot Springs (and yes, we've got 'em). Very friendly community. Cars actually stop for you to cross the street. Rarely hear a car horn. Two blocks from town.

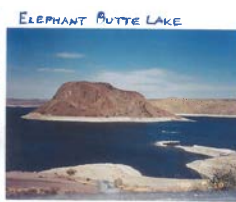
House Location:

On historic site for Geronimo and his braves, where they ground holes in huge boulders (on the southern edge of the property) for cooking maize. Evidence still there (placard next to property). Just 20 feet below us stands a fish pond stocked with trout, and another hundred feet down is the Rio Grande River, for rafting, tubing, and fishing. For even greater bass fishing, we're only five miles from Elephant Butte Lake, the largest

lake in New Mexico, which also features water sports such as boating, swimming, fishing, jet skiing, etc. There are two marinas.



VIEW FROM FRONT PORCH



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Summing Up: We lived here for more than 23 years, and I had both the fish pond and the fishroom built for my hobby, but I'm now well into my 80s, and it's time to retire from the hobby. We watched our grandchildren grow up as they spent all their summers here. Irreplaceable memories. You could have some too.

Charlie Kuhne: (575) 894-2957





GCAS Happenings

May

Last Month's Bowl Show Winners:

- | | |
|-------------------|---------------------|
| 1 WILLIAM AMELY | RED HALF MOON BETTA |
| 2 WILLIAM AMELY | ELEPHANT EAR BETTA |
| 3 RICHARD WAIZMAN | PEARL WHITE BETTA |

UNOFFICIAL 2017 BOWL SHOW TOTALS:

WILLIAM AMELY	8	JEFF BOLLBACH	5	ED VUKICH	4
RICHARD WAIZMAN	1				

A WARM WELCOME BACK TO RENEWING GCAS MEMBERS LAMONT BROWN, ROBERTO COMMISSIONG, WALLACE DENG, HARRY FAUSTMANN, PETER GOLDFIEN, AL GRUSELL, JERRY O'FARRELL, BARBARA ROMEO, RICHIE WAIZMAN, HERB WALGREN, AND RON WIESENFELD!

A SPECIAL WELCOME TO NEW GCAS MEMBERS ORLANDO GONZALEZ, SHANE HUNT, RAYMOND & MARIE LOPINTO, AND WAYNE STEPHENSON!

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

GREATER CITY AQUARIUM SOCIETY

Next Meeting: June 7, 2017

Speaker: Joseph Graffagnino

Topic: *My New Fishroom*

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

43-50 Main Street - Flushing, NY

Contact: Horst Gerber (718) 885-3071

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: May 12th, 2017

Speaker: None

Event: *GIANT SPRING AUCTION*

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: May 19, 2017

Speaker: TBA

Topic: *TBA*

Meets: Olive Garden Restaurant

257 Centereach Mall,

Centereach, NY 11720

Phone: (631) 585-4027

For map directions, go to olivegarden.com/locations/ny/centereach/centereach-mall/1507.

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: May 9, 2017

Speaker: Joseph Ferdenzi

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: May 18, 2017

Speaker: TBA

Topic: *TBA*

Meets at: Days Hotel, East Brunswick NJ

Contact: NJAS Hotline at (732) 332-1392

Email: tcoletti@obius.jnj.com

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

NORWALK AQUARIUM SOCIETY

Next Meeting: May 18, 2017

Speaker: TBA

Topic: *"WETSPOT" group order*

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/>

EAT SH*T AND PROSPER !

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.

Nature, the international journal of science, has reported on findings by Dario Valenzano, a geneticist at the Max Planck Institute for Biology of Ageing in Cologne, Germany, and his colleagues to the effect that microbes from the detritus (poop) of younger fish can, when consumed by older fish, prolong the life of the older fish.¹

Valenzano studied the turquoise killifish (*Nothobranchius furzeri*), one of the shortest-lived vertebrates on earth, reaching sexual maturity at three weeks and living between six and nine months.² The researchers 'transplanted' gut microbes from 6-week-old killifish into 'middle-aged' 9.5-week-old fish. The transplanted microbes recolonized the guts of the older fish and, at 16 weeks of age, the gut microbes of the middle-aged fish that received 'young microbes' still resembled those of a 6-week-old fish.

The researchers found that "older fish live longer after they consumed microbes from the poo of younger fish." Other studies previously found that factors in the blood of young rodents can improve the health and longevity of older ones.

Despite all of this, I'm not quite ready to make myself a detritus "Slurppy!"



Frank Vinken for Max Planck Society

Turquoise killifish have short lives, but they can live longer with gut microorganisms from younger fish.

References

¹ <http://www.nature.com/news/young-poo-makes-aged-fish-live-longer-1.21770>

² <http://www.nature.com/nprot/journal/v11/n8/abs/nprot.2016.080.html>

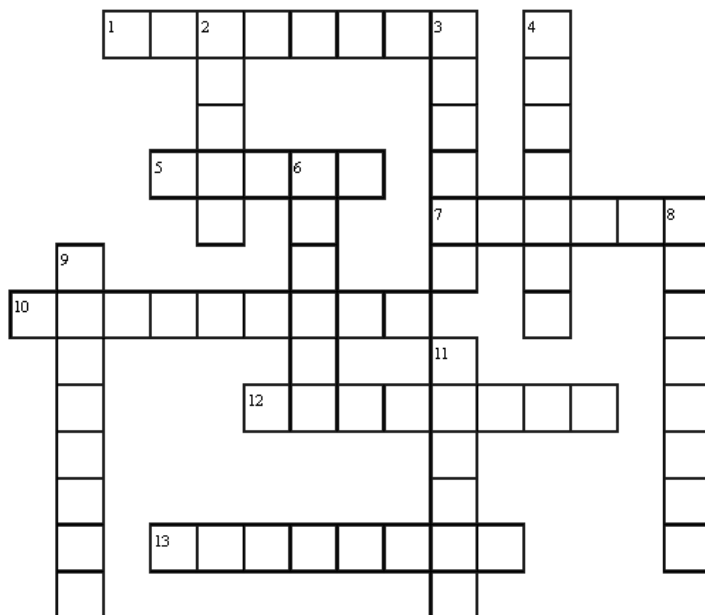


Fin Fun



CROSSED FINNAGE

At least two of the answers in this puzzle can be found in this issue of Modern Aquarium, but I'm sure you won't need any help (right?).



Down:

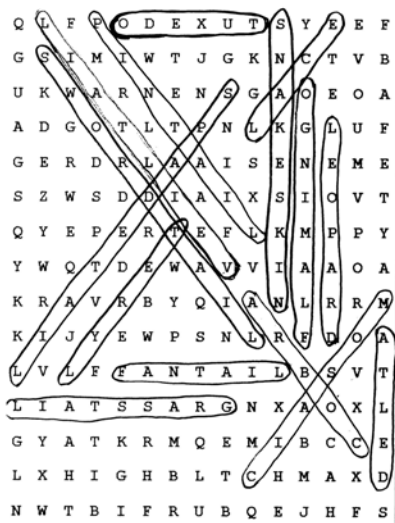
2. the nitrogen _____
3. the highest fin
4. upside down _____
6. an aquatic animal or a filter
8. for your barbeque or filter
9. what DH or dGH measure
11. Poecilia _____ (Endlers livebearer)

Across:

1. an invasive floating plant
5. carnival sweets or filter media
7. a tank with a pH less than 7.0
10. _____ organ (only in the suborder Anabantoidei)
12. what goes in must come out
13. a type of external filter

Solution to our last puzzle:

Guppy FEST



Michigan Cichlid Association Presents *Cruisin' for Cichlids*



ACA 2017

*July 13th - July 16th
Sheraton Hotel*

*21111 Haggerty Rd, Novi, MI 48375
(248) 349-4000
Novi, MI*



*Facebook:
ACA Convention*

*First Class Tours
Belle Isle Aquarium and
Scripts Conservatory
Henry Ford Museum*

*Babes Auction
ACA Members-Only Raffle
Dry Goods Auction
Sunday Livestock Auction*

First Class Speakers:

*Juan Miguel Artigas Azas
Pam Chín
Jeff Michels
Chris Carpenter*

*Ted Judy
Larry Johnson
Dale Ernst
Dominic Cernul*

For more information: ACAConvention2017.com

