

modern AQUARIUM



November 2018
volume XXV
number 9

Greater City Aquarium Society - New York

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Series III Vol. XXV, No. 9 November, 2018

ON THE COVER

Our cover photo this month features *Hypsophrys nicaraguensis*, a beautiful cichlid native to Nicaragua and Costa Rica. For more information on this popular, large-ish, and strikingly attractive cichlid, see "A New Face in the Crowd" on page 8.

Photo by Dan Radebaugh

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From the Editor

by Dan Radebaugh

This year of 2018 is drawing to a close, and in this issue we look at our hobby and our club in the context of time. I can't say that I really intended that, but as I've mused in this column before, themes have a way of revealing themselves as I put these issues together. In this issue the theme seems to be 'past, present, and future.'

Lately I've been looking through some of our older issues, and came across an article from the May issue of 1997, volume 4, number 5, Series III of **Modern Aquarium**. The article, contained in this current issue as part of our MA Classics series, is itself a pickup by the Editor (Al Priest) back in 1997 as part of the Treasure Chest series. The original article was from the January 1958 issue of **Modern Aquarium** (more than 60 years ago!), from what we now refer to as Series I. At the end you'll see a copy of the cover of that issue. The introductory note is also worth reading.

As I think about 1958, I recall (more or less in order) that the Yankees beat the Braves in seven games in the World Series, and I started keeping fish in an outdoor pond—goldfish and a few *Corydoras* species: *julii*, *aeneus*, and another, very popular at the time, that I don't think I've seen since and whose name I no longer recall. The other big event (for me, anyway) was the opening of Minnehaha, a real fish store, not too far from where I lived in Tampa. I don't think it's still around, but it lasted for many years. My fish, snail, and plant purchases before that were from W.T. Grant and Woolworth's. The sales ladies in both stores were very helpful, and even knowledgeable, or at least they seemed so to me. But I digress. Enough of the past.

What does the future hold for our hobby? Well, Joe Ferdenzi addresses that question, at least as it relates to aquarium societies, in his article on page 10, "A Primer for Aquarium Society Survival." I think you'll find some food for thought. None of us of course can really know what the future holds, but I believe we can be pretty sure that technology will continue to have a profound effect on how we associate with one another and exchange information.

Will the current creeping fragmentation of our society continue, or will we find a way to use the ever developing technology to bring ourselves back together? There's an alleged old Chinese curse (though I can't say with any certainty that it's either old or Chinese) that goes, "May you live in interesting times." But there is another applicable old saying,



and I'm somewhat more certain of this one's Eastern origin, which goes, "Your destiny is like a horse. You can either ride it or be dragged."

So what about the present? Particularly this issue. Well, echoing across eras, our exchange article this month (page 16) is also about catfish. Specifically, it's about *Corydoras* C123, the "Yellowcat." The author is Don Kinyon, and it is reprinted from **Tank Tales**, published by the Aquarium Club of Lancaster County.

In other stories, Steve Sica presents us with another in his series of articles on duckweed, "Up and Down with Duckweed," while I contribute a short piece about a new fish I received from Vic Hritz, *Hypsophrys nicaraguensis*, a very attractive cichlid from Central America.

You'll find pictures from our September meeting on page 20, and our Fishy Friends Photos on page 23. On a more political note, The Undergravel Reporter tells us about a fish from the proposed 'Great Wall of Texas' area that manages to avoid the whole hash-tag controversy by being a girls-only species. In closing, our Fin Fun puzzle this month is "It's Alive." So live it up!

I am pleased to announce that Tom Warns has joined **Modern Aquarium's** cadre of proof-readers. This is a largely thankless task, as hardly anyone knows how much work this group does, and how well they do it. Welcome aboard, Tom!





GCAS Programs

2018

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 7	Tom Keegan <i>Fish Bio 101</i>
April 4	Judith Weinberg <i>Starry, Starry Night Cichlids: An inter-species love affair</i>
May 2	Artie Platt <i>Fishroom Tools</i>
June 6	Ask The Experts <i>Joseph Ferdenzi, Moderator</i>
July 11	Salvatore Silvestri <i>Apistogramma and other dwarf cichlids</i>
August 1	A Night at the Auction
September 5	Kevin Kelly <i>Aquascaping: Basics to Expert, with Art Theory</i>
October 3	Tom Keegan <i>Fish Bio 101, Part II</i>
November 7	Rusty Wessel <i>Livebearers</i>
December 5	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 2018 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 gcas@earthlink.net. 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 or by email. 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.net>, <http://www.greatercity.org>, or <http://www.greatercity.com>.

President's Message

by Horst Gerber

There's No Place Like GCAS!

Reflecting on our October meeting, I must say that it was the quietest meeting we've had in a long time! Even Vinnie was stunned into silence listening to Tom Keegan tell us about the research going on with fish. Tom held everyone's attention from the very beginning to the end, infusing his program with funny, attention-catching videos. As a speaker, you know you are doing a good job when the audience is that quiet! Tom is working on a Part III of this program, and I am really looking forward to it!

We also had a special visitor! Rosario LaCorte graciously attended our meeting to sign copies of his new book, **An Aquarist's Journey**. It's always a treat to see Rosario, and the book is wonderful! If you haven't yet ordered your copy from Amazon, be sure and do so! You'll love it!

Here at Greater City there is an abundance of knowledge, open hearts, and friendship. Whether you are planning to set up a new tank or to breed a new fish, there is no better place to improve your knowledge than at GCAS. We are improving one member at a time, and working very hard to make every club experience count. In fact there is so much learning possible in one year that it can literally change your life as a fishkeeper. Whether you are a novice or an experienced hobbyist, we try to have something that will suit your needs. Explore the vast knowledge of our membership, and pass yours along as well. Everyone gains when we share our knowledge and experience of this enchanted world of fishkeeping.

Greater City is deeply rooted in the history of this hobby. We are the oldest continuously operating aquarium society in the United States. In 2022 we will celebrate our 100th anniversary! Let us hear your thoughts on how we should make it a true event! Is there someone you'd really like to have as a speaker? Is there a subject you'd especially like us to explore? Let us know! Let's make our continuous century of activity a real celebration! If you have an idea, don't keep it to yourself. It isn't too early to start planning! Our collaboration with our wonderful members and with other clubs can make our contribution to the hobby a continuing success story! And let's not forget all the terrific work that is done behind the scenes by our wonderful members. Our diligent, incredible, unsung heroes—men and women—continue to be the strength of this club. We don't have to make it great again; it is great!

Before I sign off I must offer kudos to Jason Kerner, who replaced our ancient projector with a new model that can handle all the modern input devices. Great job, Jason!

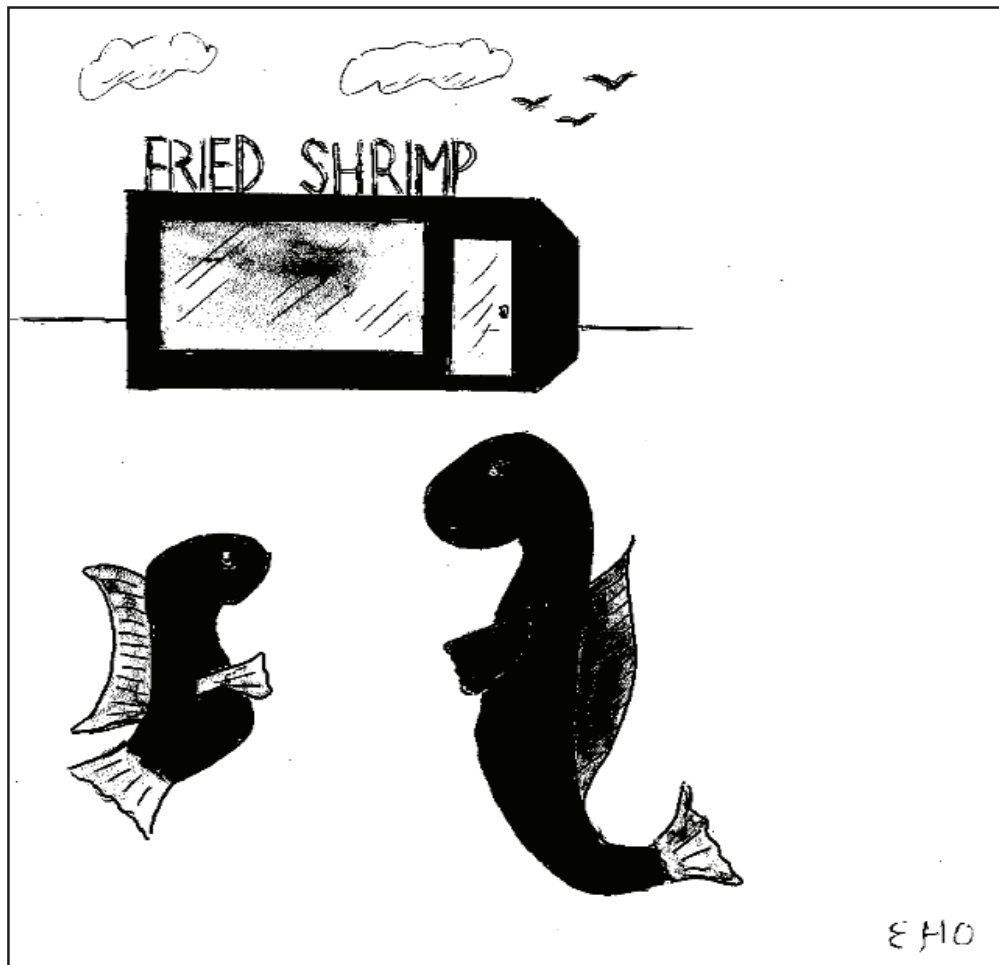
Until next month...



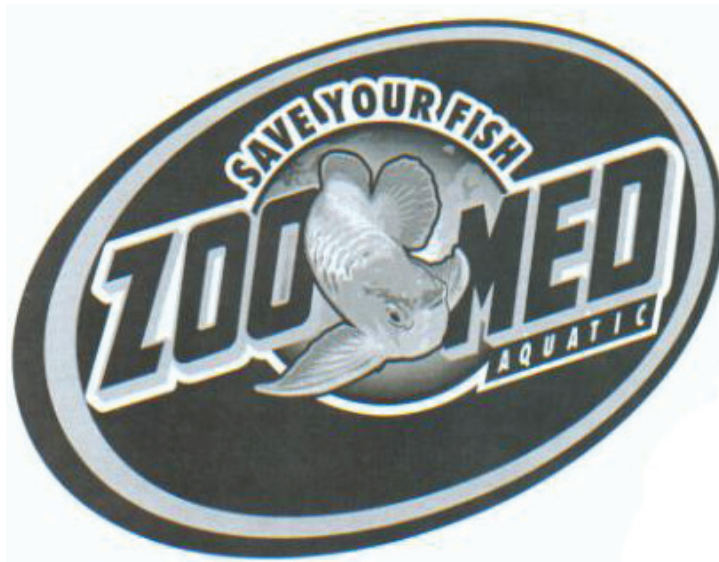
Horst



October's Caption Winner: Steve Sica

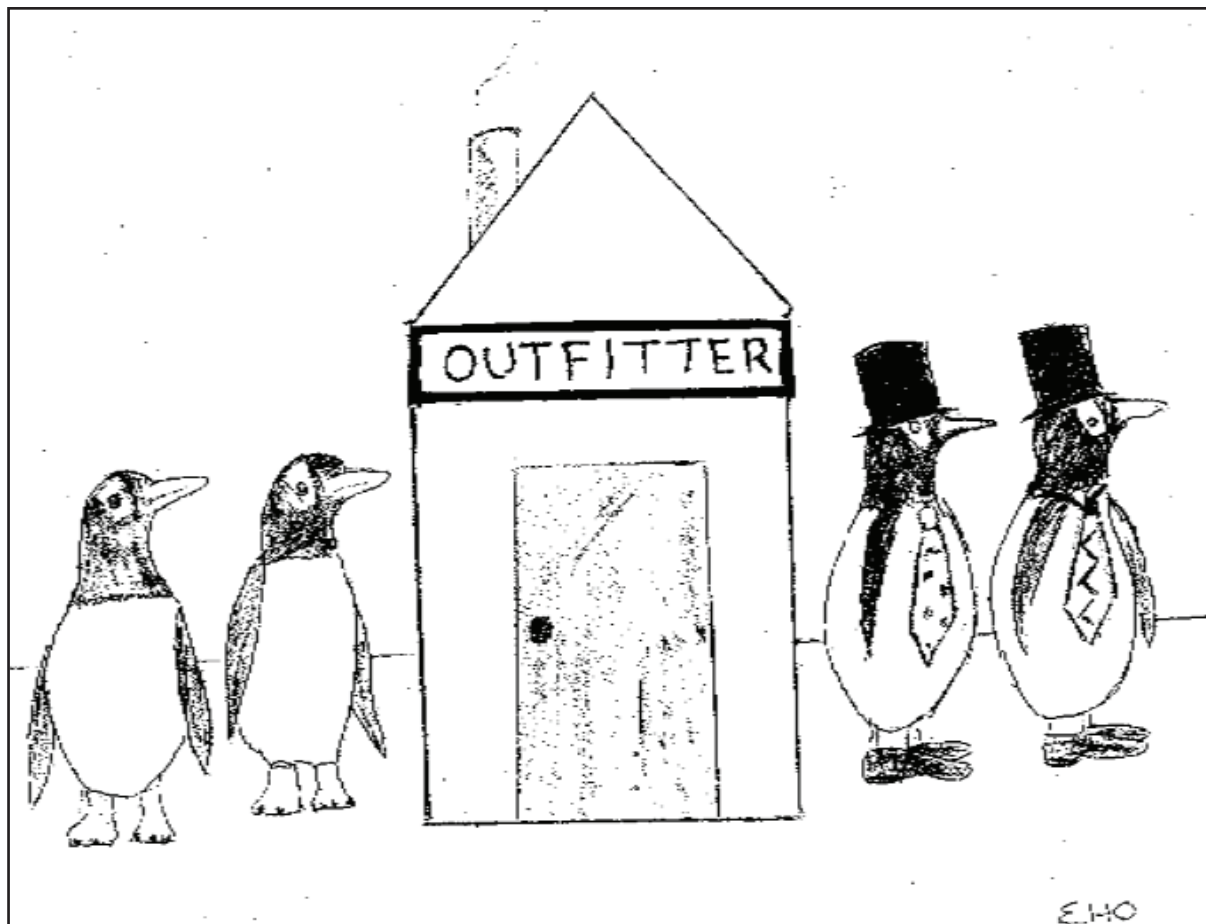


*I hear their first Wednesday of the month special is escargot.
We can make it back in time for the auction!*



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:

Tonight's Speaker

Rusty Wessel, on Livebearers

Rusty Wessel resides in Louisville, Kentucky, where he maintains over 3,000 gallons of freshwater aquariums, predominantly containing species of the family cichlidae, which he successfully raises and breeds.

From 1983 to the present, Rusty has successfully collected fish from the countries of Belize, Guatemala, Honduras, and Mexico, for a total of 26 trips to this date. A beautiful and elusive cichlid discovered by Rusty during one of his expeditions to Honduras was subsequently named for him (*Theraps wesseli*) by the late Dr. Robert Rush Miller, former professor at the University of Michigan.

Rusty is a prolific author and photographer, and his writings and photographs have appeared in such publications as **Aquarium Fish Magazine**, **Aquarist & Pondkeeper**, **Buntbarsche Bulletin**, **Cichlid News**, Ad Konings' **The Cichlids Yearbook**, **Freshwater and Marine Aquarium**, and **Tropical Fish Hobbyist**.

Rusty is currently the Treasurer for the Louisville Tropical Fish Fanciers. He has lectured and judged at numerous fish shows throughout the United States, including the annual Florida Tropical Fish Farmers show and several American Cichlid Association (ACA) conventions. Rusty is currently the convention liaison and back issue sales person for the American Cichlid Association, and a participant in the ACA speakers program. He is also past chair of the ACA Board of Trustees (1990) and past convention chair (1990, 1996). In addition, he is an active solicitor for the Guy Jordan Endowment Fund (a fund set up under the ACA to grant endowments for cichlid research). The ACA has awarded him the title "Fellow of the ACA," the highest award that the society confers.



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A New Face in the Crowd

Story and Photos by Dan Radebaugh



Hypsophrys nicaraguensis, peering out from PVC

A few meetings ago, Vic Hritz asked me if I had enough tank space to house a Central American cichlid that he needed to find a home for. Somewhat hesitantly I said yes, though I wasn't really sure what it was or how big it would get. I think he told me the name, but I didn't really recognize it, other than that it was a Central American cichlid.

Well, Vic brought it to our October meeting in a very large plastic bag, and sure enough, it contained what appeared to be a fairly large CA cichlid that I didn't recall having seen before. So, after returning home with it, I put it in my 75-gallon tank, where it would share space with a male severum, a trio of silver dollars, a *Synodontis* cat, and a *Ctenopoma acutirostre*.



I did take the precaution of also adding a large piece of PVC piping, so that there would be a potential hiding spot that was not already spoken for.

Finally looking the fish up, I discovered that it is in fact the highly popular *Hypsophrys nicaraguensis*, a long-time favorite of cichlid hobbyists. This is a really beautiful fish! I suspect that this specimen is a female, but the fin extensions could indicate male. I have no experience with the species, so we'll see. Right now, 'she' does like to take refuge in the PVC, but also gets out and about. The (for now) much larger severum made it clear to her whose tank it is, but without any actual hostilities. I'll probably pull the PVC out after a week or so (it's rather ugly, but is serving its purpose). If necessary I'll redecorate a bit so that the space doesn't look so bunched up.

Also known as the macaw cichlid, nickie, moga, parrot cichlid, butterfly cichlid and *nicaraguense*, this species has been moved from genus to genus, inhabiting *Cichlasoma* (who hasn't?), *Copora*, *Heros*, and *Theraps*. *Hypsophrys* was a monotypic genus until 2007, when *Neetroplus* was also added.

Indigenous to Costa Rica and Nicaragua, these fish can grow fairly large; males up to around 12 inches, and females to around 9. The males may develop a

nuchal hump, as well as longer fin extensions. They are reputedly not picky eaters, though I can't yet confirm that.

I have read that in the wild females will often form collective spawning areas, where three or four females will locate their nests in close proximity, and the group will collectively maintain and defend the eggs and fry. Also, Sam Borstein notes that "in the wild *Neetroplus nematopus* is a major predator of *Hypsophrys nicaraguensis* fry. *H. nicaraguensis* have been observed defending *Parachromis dovii* fry, the main predator of *N. nematopus*. It's hypothesized that by helping defend *P. dovii* fry, there is a greater chance that more *P. dovii* will reach maturity and more of the *N. nematopus* will be eaten, leaving *H. nicaraguensis* with fewer *N. nematopus* to compete against."

VITAL STATS

SCIENTIFIC NAME: *Hypsophrys nicaraguensis*
COMMON NAMES: 'Nic', Macaw Cichlid
HABITAT: Nicaragua, Costa Rica
FEEDING: Omnivore
ADULT LENGTH: 12" (males), 6.5" (females)
SEX: Males grow larger and have a small hump, while females are usually more colorful.
TEMPERAMENT: Mildly aggressive
CONSPECIFIC TEMPERAMENT: Aggressive
TEMPERATURE: 76 - 80° F
pH: 7.4- 8.4, dH range: 9 - 20
BREEDING: Females dig and defend breeding pits; non-adhesive eggs.
LIFESPAN: 10-15 years.

References:

<http://www.borstein.info/profiles/central/hypsnics.html>

https://en.wikipedia.org/wiki/Hypsophrys_nicaraguensis

http://diszhal.info/english/cichlids/en_Hypsophrys_nicaraguensis.php

<https://www.fishbase.de/summary/Hypsophrys-nicaraguensis.html>



A Primer for Aquarium Society Survival

by Joseph Ferdenzi

A recent article in the **New York Law Journal** bemoaned the fact that enrollment in bar associations in New York and around the country is on the decline, due in part to the emergence of a generation that prefers virtual communities. That made me think about one of the complaints in our hobby—namely that membership in our aquarium societies is gradually shrinking. But if it can happen to something as significant as bar associations, why shouldn't it be happening to aquarium societies? And what, if anything, can be done to stem this tide?

To state the obvious, a lot has changed since most aquarium societies were founded back in the early and middle decades of the 20th century. Probably the most significant change has been the advance of the personal



computer and the internet. Before, there had been no access to “instant information.” The closest thing to it was to belong to an aquarium society, where you could gain valuable insights from more experienced members. Societies presented (and still do) guest speakers on a variety of topics. But who needs that now? The number of videos on aquarium topics that are now available online is mind-boggling!

Admittedly, this virtual community is beneficial for people who live in rural or sparsely populated places, and have no practical access to a local aquarium society. But this virtual access to experts may be dissuading younger people—those most proficient in the use of computers—from seeking to join aquarium societies. This is a major problem, because in addition to declining membership rolls, many aquarium societies are experiencing a “graying” of their membership. What can be done?

Some societies have turned to trying to make their meetings more “user friendly”—by changing their meeting times to Saturday afternoons, the theory being that this will more likely result in families attending, or at least having a parent bring along a youngster to a meeting. This may indeed cause a bump in attendance, and benefit both older and younger members.

Societies certainly need to be “friendly” on all levels. New members should be acknowledged at meetings, both orally and in whatever medium the society uses to communicate with its members. More senior members should take it upon themselves to encourage conversations with new members. In short, they need to be made to feel welcome. Dues, naturally, should be kept as low as possible, and no one should be made to feel unwelcome, even if they can't afford to pay dues. Friendly person-to-person contact is one thing that cannot be duplicated on a computer.

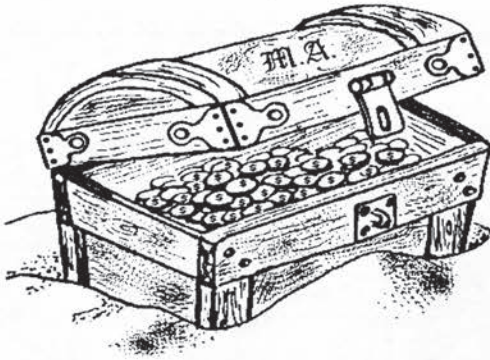
Another important aspect that cannot be duplicated on the internet is our auctions. At Greater City, for example, they are held monthly. Sure, you can buy fish and plants off the internet, but that has several disadvantages. At a society auction you can see exactly what you are getting, you can often meet the breeder/grower, and you don't pay shipping or taxes. Have you seen what it costs to ship fish? It is certainly not cheap, and of course you have to pray they arrive alive.

So, the advice for aquarium societies that want to try to stop eroding memberships is two-fold: make your meetings friendly, and ensure you have good auctions every meeting. The latter, by the way, can often be enhanced by making sure your sellers get a fair share of the auction proceeds if they so choose. This usually means they get 50% or more.

It may very well be that nothing can stem the tide of the internet juggernaut, but if we do not maximize our advantages, the demise of aquarium societies will come much sooner, rather than later.



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Treasure Chest

Among the most valued items in our Treasure Chest are a few precious copies of **Modern Aquarium** Series I, which was published in the late 1950s. No one knows exactly how many issues there were. This article came out in January of 1958. The illustration on the next page is a copy of the cover from that issue. The author of the article was also the Editor at that time. In 1988 Gian authored a book entitled **The Catfish**, published by **Freshwater and Marine Aquarium** magazine. Alas, it is no longer available. We hope you enjoy...

CATFISHES

Gian Padovani, GCAS

Of all the tropical fishes there seems to be one which is nearly always present in everybody's tank: The Catfishes. There are many catfishes available to the aquarist. Ranging in size from one inch to over a foot, they all seem to agree in being peaceful. They are also hardy and colorful. Their price is never cheap, some of the rarer species being quite expensive.

Leading the list in popularity are the various species of *Corydoras* followed by the *Hypostomus* (sucking catfishes), and *Callichthys*. Of *Corydoras* alone there are so many different ones that together they would make up a nice display tank. I have a strong liking for them myself and occasionally I find some of my tanks containing more catfishes than the other tropicals. Most *Corydoras* are a lot of fun to watch. Many are the aquarists who consider them their very favorite fish. Every body will agree that, with their clownish attitude, they certainly are at least

different.

Generally when a beginner purchases a catfish, he does so for one reason: he believes that he has acquired a scavenger that will keep his tank clean. It doesn't take long to realize that such a belief is untrue. A catfish is a bottom feeder (yes, I know that your catfish occasionally swims to the surface to feed with the other tropicals, but don't forget the average tank is only one and one half feet deep). Being a bottom feeder he eats scraps of food which, unnoticed by the other fishes, settles to the bottom. That, my friends, is his only "Sanitation Department" job. For the rest, you will need a filter and a dip tube. Incidentally, the same holds true for a sucking catfish. He WILL eat some algae, but there is a limit. If you ever scraped algae off a side of your tank, you must know how tough it can become. So don't expect too much from your "Cats," and make sure they get their share of food as do your other fishes.

Catfishes are hard to sex and to breed. Some people, however, have succeeded in this task with patience, luck, and as Sam Estro once told me "If you condition your fishes properly you should increase your chances of spawning anything that swims..." Presently, most of the catfish supply comes to us from South America. Lately, more and more Dark Continent specimens have reached the United States market. Our cover for this month shows one of the rare and beautiful African catfishes. Its scientific name is *Synodontis angelicus*, but it has been nicknamed the "polka dot catfish." I have owned one for over a year and found four distinctive characteristics about them:

- 1) They are able to produce a sound
- 2) They have a very fine sense of smell
- 3) They are very possessive about a niche or crevice they have selected as their hiding spot
- 4) Occasionally they show the same trait of the related catfish *S. nigriventris*, in swimming upside down.

To the above notes I would like to add an opinion, since I should actually witness the case to make it a statement. It is generally acknowledged that this catfish is peaceful. I keep my specimen in a 10 gallon community tank together with a few White Clouds, Rasboras, etc. Being so fond of "Spot," I have removed all the other catfishes as to eliminate competition. One evening I discovered a very nice tuxedo swordtail swimming peculiarly; the body had a slight bend. Close examination showed unmistakable bite marks. No other fish in that tank, with the exception of the catfish, has a mouth so large to

cause such a mark. A few days later, I noticed no evidence for the disappearance of a platy. What would you have thought?

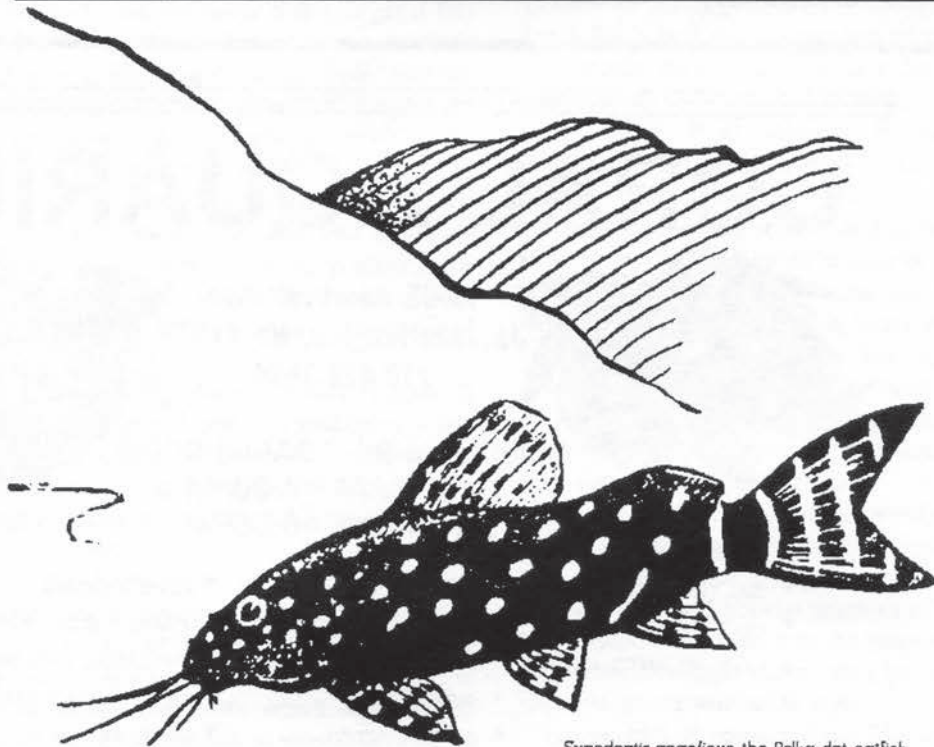
Once I overheard a youngster ask the reason why a catfish is so called. His companion answered that it was because of the whiskers. his explanation of the name was probably correct, but as most of you know, the so-called whiskers are very sensitive feelers which function as tactile organs and possibly to pick up vibrations and odors as well.

Catfishes vary immensely in size. The diminutive *Corydoras hastatus* is a peanut next to the Mississippi River catfishes which grow up to 200 pounds. Catfishes are found in fresh and salt water. They aren't very fast swimmers, but nature has provided them with some sort of defense. A lot of them are encased in tough armors. Some have poisonous spines. A few are equipped to discharge an effective, powerful, electric shock.



modern aquarium

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Synodontis angelicus, the Polka-dot catfish

Up And Down With Duckweed

Story and Photos by Stephen Sica



Spanish moss "drips" onto the surface of the duckweed-laden lake. All this duckweed soon became pleasing to my eyes!

If you have been following my experiences with duckweed for the last two plus years, you may recall that it all began with Greater City's Vice President and expert auctioneer, Ed Vukich. Somehow, he was able to mesmerize or convince only me and no one else to bid on and purchase a bag of duckweed at a



With duckweed and eclipses on my mind, I spot this green character who reminds me of duckweed. (S)he makes a very good listener as I discourse about my duckweed affliction over a cold drink.

society auction for one dollar. Oh, those pleading eyes were so persuasive!

Let me ask you, whether you are an unbiased Greater City member, or simply a stranger who happens to read this, one simple question. Would you buy a bag of duckweed? Who buys duckweed at any price? Consider this: I went home from the meeting that night thinking that I had gotten a bargain! I was downright ecstatic! Much to my dismay, it took me a long time to wise up, but by then it was too late. I was hooked on duckweed. As a point of information, the sheetrock wall in our den behind my aquarium is painted a medium shade of blue. It seems that tiny particles of duckweed like to fasten themselves onto the surface of the wall right next to and behind my aquarium if I am not extremely careful. As a matter of fact, I fervently believe that duckweed binds itself to anything with which it comes into contact. It's like floating green glue on the surface of the water. But it's also very difficult to keep it on the surface of the water. It seems as though it follows you (well me,



We took a tour of the Magnolia Plantation just outside Charleston. A tram drove us past a small lake with most of its surface covered in duckweed. I immediately thought about my former plan to sell it for one buck per bag!



Another view of the duckweed-strewn lake on the grounds of Magnolia Plantation. It's the most duckweed that I have ever seen in one location.



While I think that duckweed is good, it does have the potential to be dangerous. A single well-hidden eye looks out in a sea of duckweed. If you drain the lake, you will find an alligator connected to that eye.



Now that I know that duckweed can be full of alligators, should I raise my price? A dollar a bag might be too low. These waterfowl look like an appealing alligator meal to me. I'll scoop it up while the gators chase the fowls!



A wider view of "Duckweed Lake."



What may be a crane or heron of an unfamiliar species, stands on a wooden platform amidst a lake of duckweed.

anyway) all around the house, adhering to everything. I'm always rinsing it off my hands and arms. I feel like I should be in a performance of **Macbeth**! Wasn't it Lady Macbeth who said, "Out, out, damned spot of duckweed?" On a more positive note, I found that it does wash off quite easily, and I don't have a guilty conscience when watching it spiral down the drain. Goodbye to a cruel world full of duckweed!

One of my latest encounters with duckweed, aside from its floating upon the surface of my aquarium, occurred just over a year ago during our visit to Charleston, South Carolina to unsuccessfully

chase the August 21, 2017 total solar eclipse. It seems that the place is full of duckweed, if you know where to look. We had visited Charleston many years ago, and I never even smelled the stuff, but now I have become a duckweed magnet. I wonder if duckweed has any sort of a positive effect on women? Last year I thought about collecting it and selling it for a dollar a bag. Perhaps I could dry it out, grind it up, and add it to some inexpensive cologne. Would you purchase Duckweed No. 5? Remember, the holidays are fast approaching; it might make a nice gift. It would not be cost prohibitive, if you're on a tight budget.

Also on our trip to Charleston last year, we didn't know where to look, but serendipity brought duckweed to us. It must have been fate. A day after the eclipse fizzled out, or should I say washed out, we visited a former farming plantation that held many irrigation lakes, ponds, and canals to irrigate rice fields.

The Magnolia Plantation is now a tourist attraction with walking trails, as well as a tram and boat ride to relax and observe wildlife. Now that I have been affected by duckweed in both mind and body, I am constantly on the lookout for the stuff. Of course I don't think that I would pay for it anymore.

I believe that in my article last month about glass catfish, I mentioned that our basement was being renovated. I plan on setting up my thirty gallon aquarium once again, and maybe a smaller nano-aquarium. Maybe I should add another to act as a duckweed nursery. Wouldn't that just be great? Once or twice, long ago, I mentioned that Joe Ferdenzi's series of articles on "My Favorite Tank" were some of my all-time favorite **Modern Aquarium** articles. Can



Small irrigation ditches and canals are filled with duckweed.

you just imagine me writing "My Favorite Duckweed Aquarium?" What a plan! And I owe it all to Joe!

I have to wrap up this story for now because it's making me breathless. I'll need some time to recover and begin formulating my next story. Let's see, "Far away and long ago, I developed a deep (state) fascination for duckweed. It all began about three years ago when a man named Ed..."



A last look at "Duckweed Lake" before preparing to head home. No solar eclipse but lots of duckweed. Pick your poison! Oh well...maybe next time.



CORYDORAS C123

"YELLOWCAT"

Text and Photos by Don Kinyon

This is a very distinctive *Corydoras* catfish native to the Rio Nanay in Peru. What makes it distinctive is the bright yellow coloration of the fins, particularly in the males, almost never seen in *Corydoras*. Otherwise, they resemble most of the *elegans*-type *Corydoras*, having a dark brown body with silvery white markings. The pattern is mottled at the head, and then forms two more or less stripes on the back of the body to the tail. The dorsal fin is yellow with horizontal dark bands, as is the caudal fin, though with less dark coloration. The rest of the fins are yellow as well. The males grow to around two inches in length, while the females grow larger by half an inch, and are much heavier-bodied.



C123 Male

I was lucky enough to find a group of these fish at an aquarium society auction. I'd never seen this species available before, and won the bidding (would have gone a lot higher!). Later I was able to talk to the seller, and learned that these fish were first generation from wild-caught parents, and also learned the method he used to trigger spawning. A month later I found that a collector had brought a small group of wild-caught fish back from Peru, and had them for sale. I bought this group as well, and added it to the few that I already had. This left me with four males and five females; not perfect for *Corydoras* breeding, but good enough.

The group already seemed to be mature enough to set up as breeders, so they went into a 30 gallon long aquarium for breeding. There were two air-driven sponge filters—one at each end, with a medium-sized powerhead in the right front corner, its flow directed down the front glass, with a small sponge covering its intake. The floor of the tank was covered with a thin layer of river sand, and there were

a few stones scattered about the tank bottom. The only other piece in the breeding tank was a single large yarn mop.

The hobbyist who had spawned and raised the first group of my fish told me that, through circumstances beyond his control, the fish had to go through an "artificial dry season" for a while, with not much food or fresh water. When things were back to normal he started doing water changes with rainwater, which triggered the fish to spawn.

When my breeders had shown no interest in spawning for a few weeks, even with lots of live food and two or three water changes per week, I decided to try and duplicate the circumstances with which the original breeder had had such success.

I drained about half the water from the tank, covered it with some towels, and put a sticky note on the top with the date that I'd done it. I waited. Waited some more. The fish in the tank were not getting any water changes, and not much to eat. I waited until I could no longer stand it, which turned out to be 18 days. I'd found my limit; I can only abuse fish for two and a half weeks.



C123 Female

Once the cover was off, the tank was drained further, to about two inches from the bottom, and filled with cooler rainwater. The breeders were fed well from that point on, mostly with live and frozen foods, supplemented with Repashy jello and freeze-dried tubifex. The females grew rotund, and the males grew much more active, chasing the females around the tank. This lasted two or three days, then nothing. Two more weeks went by and still nothing. Four weeks, then five, then six, and I'd about given up.

Through some fish trading, I obtained five more fish from Matt Chambers, the hobbyist who had originally spawned the fish. These were younger and not yet old enough to breed, but I figured that it certainly wouldn't hurt to mix up the tank a little, since nothing else seemed to be working. I put the five healthy young fish in with the group. Eight days later there were eggs on the front glass near the outlet of the powerhead. Not a great amount—around 50—but at least there were some eggs. I'm not sure if adding the young fish had anything to do with the spawn or not, but it's the only thing that changed.

By shutting off the powerhead, and carefully sliding a razor blade under the very adhesive eggs, I then removed them without damage. I always keep a turkey baster at the ready in case an egg or two falls from the blade. I dropped the eggs into a 5.5 gallon tank, along with water from the breeding tank and some alder cones, a sponge filter, and a layer of fine sand covering the bottom glass. There are always a few oak leaves in my fry tanks to give the young fish cover and more surface area to scavenge for micro foods. Within a day, most of the eggs were turning white and hairy, and in two days the vast majority had gone bad.

"Spotlighting" the fish with a flashlight after the lights had gone out for the evening showed some movement under the leaves, so the tank was left undisturbed for a few more days. It turned out that only a very few fry hatched and survived the first spawning.

I was contemplating putting the fish through another "artificial dry season," when it became necessary for me to have shoulder surgery, leaving the fish to fend for themselves for a few days. Even once on my feet again, doing water changes and moving fish around were not in the cards, but I did manage to feed them well. With so much time on my hands, wandering the fish room became a regular routine; otherwise, I may not have noticed the eggs in the C123 breeding tank, hidden in all four corners, near the water line. The placement wasn't unusual for *Corydoras*, but the formation was. Each corner had a ball of eggs placed almost where the two plates of glass came together, and almost at the water line. The largest ball was over 3/8" and the smallest about 1/4". There were a few scattered eggs near the balls, but none to be found in the mops or sand. The only other eggs I found were a few on the motor section of the powerhead.

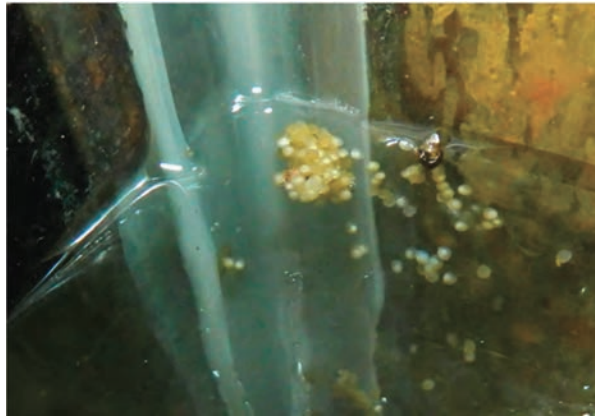
These eggs were all removed in much the same way as were the first group, although working one-handed made it painfully slow work. I separated the eggs by hand as much as I could, so that there weren't any large groups stuck together. Most of the groups were three or four eggs by the time they went into the hatching tank. The hatching/rearing tank was a 7 gallon setup, also with a sponge filter, oak leaves, fine sand bottom and an alder cone. Two days later, just as the first of the eggs were hatching, the fish spawned again. This time the eggs were in only two of the corners, but this time some were in the mop and along the bottom of the front glass. The mop had more eggs in it than I wanted to pick out, so I dumped it into the hatching tank, and replaced it in the breeding tank with a fresh one. The rest of the eggs were separated, and joined the first group and the mop in the hatching tank.

In one more day all the eggs that were going to hatch from the first group had hatched, and three days later the second group had hatched out. There was really no way to tell how many were present at this point. The fry at hatching

are very small and need micro foods. The smallest of the YFS Golden Pearls brand foods will work, as well as pulverized and soaked flake food. Within a few days, or a week at the most, the young fish were able to take microworms, and then decapsulated brine shrimp eggs two weeks later. At this point the young fish were 5/16" to 3/8" long and very active. They no longer hid under leaves and the edges of stones during daylight hours, but were out scavenging for food most of the time. Their coloration and body shape were nothing like the adult fish; they looked more like tiny zebra-striped sharks. In order to keep the pressure changes to a minimum on their delicate air bladders, small water changes were done two to three times a day.

At this writing the young C123 "yellowcats" are two months old and growing fairly quickly. They're around an inch long, and constantly searching for food. The air bladders of the youngsters will be developed enough at this point to do larger water changes without worry, and they will soon be placed in a larger tank to grow out.

This is an unusual *Corydoras* that is a fine addition to a community tank, or great for display in a one-species tank. They may pose more of a challenge to keep and breed than many *Corydoras* catfish, but in this hobbyist's opinion they are well worth it!



C123 Eggs





GCAS Thanks You!

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THE EMOTIONAL BENEFITS OF A FISH TANK

by Jules Birnbaum

As I write this article I am watching TV in my upstairs den. Next to the TV is a 55 gallon tank containing more than a dozen *Amphilophus robertsoni* cichlids. I started this colony several years ago when Rusty Wessel gave a presentation at our club and brought some fry, a bag of which I bought. These in due course grew to adults and reproduced. The fish I'm looking at now are second generation from that original group.

I find that there are many disturbing things on TV. This tank gives me lots of relaxation, knowing I'm looking at a little world that I created and maintain. It brings to mind how this all started.

As a child many years ago growing up in Queens, New York, we played outside until it was dark. There was no TV or computer. There was however, a pet shop in nearly every row of stores. Most of us had a goldfish bowl or some small tank. My father was an executive, but also a trained cabinet maker. He bought me a small fish tank and saw that I was taking care of it, so he decided to build me a little fish room around our basement oil burner. One of its features was a booth just outside the room with a fish tank showing through a window.

I did my homework or ate in that booth, and had a relaxed feeling while watching that fish tank. I eventually wound up with four tanks, and bred angelfish when I was 12 years old. I believe that booth, with the fish tank, helped me get passing grades.

As 12-year olds, my friends and I traveled to the Wall Street area of New York City to visit the Aquarium Stock Company, but we could never afford their prices. As I recall, a neon tetra was about \$3 per fish in 1946, which in today's dollars, would be \$43. We did enjoy window shopping, and the education we

got from that was wonderful! That shop had its own converted WWII bomber to bring in rare topical fish. Joe Ferdenzi has one of those large metal shipping containers with a narrow top so that water would not spill. An air hose could be placed down the container's throat. It was wonderful to see those rare fish, that a few days before had been in a river or lake in Central or South America.

My future wife Elaine and I corresponded while

I was in USAF boot camp. We kept those letters, and recently read a few. In one of her letters she wrote that she was taking care of my fish and they were all well. When I got home the fish were all fine. I guess that her care of my fish sent a message, since we are now married 63 years. Today she does not care to go near my fish tanks.

My small fishroom ended when we married and I received my commission in the Air Force. A few years later, after my discharge, we had two children and bought a home. Naturally we had to have a fish tank for the kids (and me). This tank gave us lots of fun until it cracked and leaked. Rather than repairing it we bought a new one, this time a large 150 gallon tank, which we sold when we remodeled the house.

I decided I could get lots more from the hobby by having a few more tanks. It was so enjoyable that we converted our garage (we have no basement) to a fishroom and a larger utility room for Elaine. I now have 34 tanks—the dream I had as a child came true!

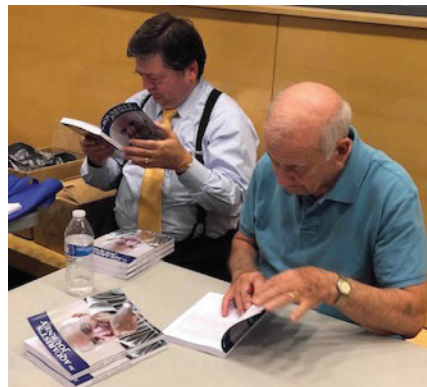
Here I sit in my upstairs den with my large TV, and next to it a 55 gallon tank, watching each equally. One makes me tense; the other relaxes me. There is a real emotional benefit to watching that little natural world in a fish tank!



Pictures From



Tom Keegan gave us another excellent program



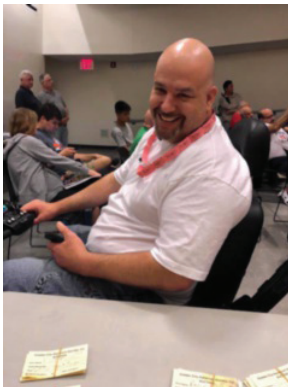
Rosario LaCorte is busy signing all of our books



Everyone pays a visit to the membership table



Jeannie LaCorte is never far from her husband, Rosario



Robert Kolsky never misses an auction



GCAS always draws a crowd

Our Last Meeting

Photos by Joe Gurrado

We warmly welcome our newest members:



Al Di Spigna



Bryan Buenaventura



Larry Paul

Bowl Show Winners:

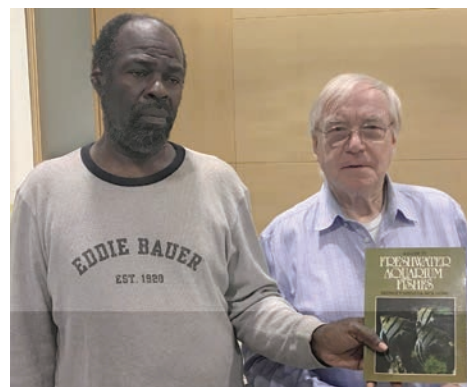


1st Place: Carlotti DeJager



2nd & 3rd Place: Bill Amely

Door Prize Winner



Denver Lettman

Past recipients:

1979	Betty Mueller
1980	Martin Bernard
1981	Penny Faul
1982	Ray Horn
1983	Lee Finley
1984	Ann & Walter Howe
1985	Kathy Beebe
1986	Jack Adinolfi
1987	Sandy Billings
1988	Al Faul
1989	Dave Quinn
1990	John Galvin
1991	John Stankevitch
1992	Bill Kenney
1993	Aline Brousseau
1994	Faith Quinn
1995	Tony Terciera
1996	Don Johnson
1997	Sue & Wally Bush
1998	Diane Adinolfi
1999	Chuck Davis
2000	Aline Finley
2001	Janine & David Banks
2002	Wayne Leibel
2003	Karen Randall
2004	Mark & Anne Broadmeyer
2004	Honoree, Ray Lucas
2005	James White
2006	Rit Forcier
2007	Christine & Frank Policastro
2008	Joe Masi
2009	Linda & David Giza
2010	Barbara Day
2011	Bill Cole
2012	Claudia Dickinson
2013	Leslie Dick
2014	Richard Pierce
2015	Rosario La Corte
2016	Nancy Villars/Hallgring
2017	Barbara Romeo
2018	Fran Masi

Call for Nominations



Betty Mueller Memorial Honor Lifetime Achievement Award

Deadline:
January 30, 2019



This special recognition is given to individuals who, over the years, have given overwhelming dedication and support to the aquarium hobby and to the Northeast Council of Aquarium Societies, Inc.

The rules are as follows:

Any NEC member club or NEC member can nominate up to three persons a year. Each nomination should be accompanied with a short paragraph explaining why you feel this person is qualified. You cannot nominate anyone who already has received this honor. A committee of persons who have received the honor and are still active in the NEC will make the decision. The honor will be presented at the annual NEC Convention banquet.

Please send nominations to Janine Banks
janinebanks@comcast.net



Fishy Friends' Photos

by Greater City Aquarium Society Fishy Friends

Below 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!



GREATER CITY AQUARIUM SOCIETY

ANNUAL HOLIDAY AWARDS BANQUET 2018

Join us for GCAS 2018 Awards, buck-a-bag auction, authors' raffle, party favors, door prizes, AND choice of meal!



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DECEMBER 5, 2018, 7:00 PM

\$25.00 PER PERSON

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Welcome to Georgia Diner



Choice of Soup or Salad:

Soup:

Soup of the Day
Chicken Noodle
Chicken Rice
Manhattan clam chowder

Choice of Dressing:

French	Italian
Russian	Bleu Cheese
Honey Mustard	Ranch

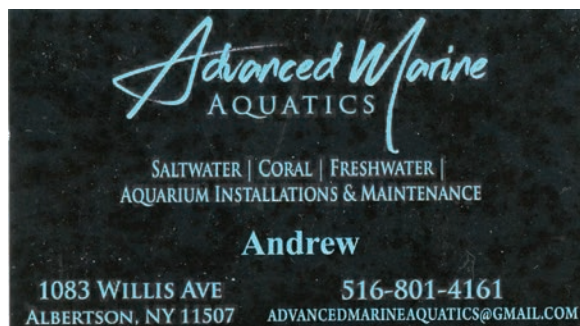
Entrees:

Mediterranean Tilapia Filet with rice and vegetables
Broiled Norwegian Salmon with Lemon Butter sauce, pot. and veg.
Baked Chicken with Olive oil and lemon juice, pot. and veg.
Romanian Steak Tips with mushroom onion over rice
Chicken Parmigiana with spaghetti
Penne with Broccoli and Grilled Chicken mixed
with garlic and oil

Beverage:

Coke Diet Coke Sprite Ginger ale Coffee or Tea

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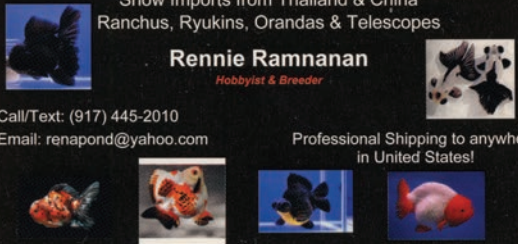
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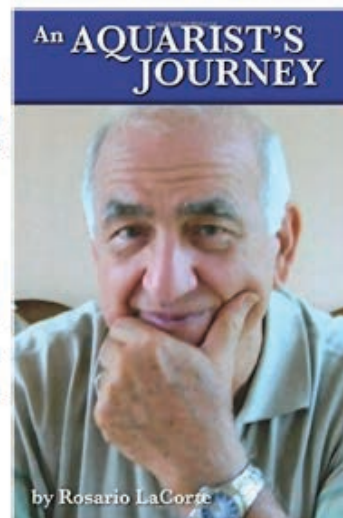
Call Kris: 516-282-6677

An Aquarist's Journey

Rosario La Corte is one of the world's leading authorities on breeding fish and he has written numerous articles and books, contributing greatly to our understanding of fish and their habits.

Now, for the first time, here is a compilation of his travels, adventures, successes (and, very occasional failures) all relating to collecting, keeping, and breeding fish, and in his own words (and edited by Modern Aquarium's Editor, Dan Radebaugh).

Available in softcover at Amazon.com





GCAS Happenings

November

Last Month's Bowl Show Winners:

1 CARLOTTI DEJAGER	DALMATION BETTA
2 WILLIAM AMELY	HALFMOON KOI BETTA
3 WILLIAM AMELY	HALFMOON PLAKAT BETTA

UNOFFICIAL 2018 BOWL SHOW TOTALS:

WILLIAM AMELY	36	RICHARD WAIZMAN	21	CARLOTTI DEJAGER	6
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A SPECIAL WELCOME TO NEW GCAS MEMBERS BRYAN BUENAVENTURA, AL DI SPIGNA, AND LARRY PAUL!

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

GREATER CITY AQUARIUM SOCIETY

Next Meeting: December 5, 2018

Speaker: None

Topic: *Annual Holiday Awards Banquet*

Meets: The Georgia Diner, 80-26 Queens Blvd., Elmhurst, NY, 7:00 PM

Contact: Horst Gerber (718) 885-3071

Email: pilotcove43@gmail.com

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: November 9, 2018

Speaker: Greg Sage

Topic: *Selective Breeding*

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: November 16, 2018

Speaker: Michael Marcotrigiano

Topic: *How to Build a Paludarium*

Meets: 3rd Friday of each month (except July and August) at 8:00 PM. LIAS Meetings are held at SUNY Stony Brook's Maritime Science area. Room 120 in Endeavor Hall on the State University at Stony Brook Campus, Stony Brook, NY 11790

Email: 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: November 13, 2018

Speaker: TBA

Topic: TBA

Meets: 2nd Tuesday of the month (except July and August) at 7:30 PM. Molloy College, at 1000 Hempstead Avenue, Rockville Centre, NY, in the PUBLIC SQUARE BUILDING, room 209A. See website for directions.

Contact: Harry W. Faustmann, (516) 804-4752.

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

NORTH JERSEY AQUARIUM SOCIETY

Next Meeting: November 17, 2018

Speaker: Lawrence Dressler

Topic: *Spirulina, the Green Wonder Food*

Meets: 12:30 PM - 3rd Saturday of the month, at Clark Public Library in Union County, just off the Parkway at exit 135

Contact: NJAS Hotline at (732) 332-1392

Email: tcoletti@obius.jnj.com

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

NORWALK AQUARIUM SOCIETY

Next Meeting: November 15, 2018

Speaker: Video of Members Fish Tanks

Topic:

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/>

Girls Only !

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.

A series by "The Undergravel Reporter"

For all intents and purposes, the Amazon molly (*Poecilia formosa*) should be on a crash course to extinction. Not only has it survived, but thrived.

Over time, the all-female species of the Amazon molly, a freshwater fish native to the border region of Texas and Mexico, has figured out how to clone itself without any male DNA. They technically mate with males in a similar species, and the sperm from the male does

pierce the female ovum—but then the Amazon molly's eggs destroy any trace of male genes and the cloning process begins.

Scientists have long theorized that this form of sexual reproduction—called gynogenesis—would usher in extinction for the Amazon molly. Most species that employ (or had employed) asexual reproduction are marked by a lack of genetic variation and aren't equipped to survive new pathogens and environmental change.

But in a study published in the journal **Nature Ecology & Evolution**¹, researchers mapped the Amazon molly's genome and compared it to the genomes of two related fish species. They found a high level of genetic variability in the Amazon molly's immune-system genes, which they believe enables the fish to adapt to dangers in its surroundings.

Reference:

¹ <https://www.nature.com/articles/s41559-018-0473-y>

² <https://qz.com/1205980/>

"Unexpectedly, we found no widespread signs of genomic decay," the researchers write. In other words, the fish's genes evolved along with the its surroundings, rather than stagnated.²

There was another strange finding: the Amazon molly appears to have kept some of the sexual organs it doesn't even use. That's uncommon, as many other fish have evolved to lose organs they stopped needing. For example, the cave-dwelling Mexican tetra lost its eyes. The same has happened with some amphibians. It may be that the Amazon molly's evolutionary process hasn't played out long enough yet, in which case it's setting something of a record, according to the study.

The finding is forcing scientists to reconsider how they think about asexual reproduction. The Amazon molly is the sexual ancestor of two parent fish called *Poecilia latipinna* and *Poecilia mexicana*. It may be that the coming together of those two

fish was something of a perfect storm of genes. Rather than seeing the resulting asexual species as inferior, researchers are considering the hybrid genome as a strength. They're calling it "rare-formation hypothesis."

"We propose that genetic diversity between clones offers at minimum a short-term benefit to the asexual species in coping with environmental challenges," the study states. "Those clones that acquired new adaptive mutations will thrive, while others that are less fit...will disappear."

Well, at least an aquarist doesn't have to worry about "pairs" or "trios." A true "Sister Act!"





Fin Fun

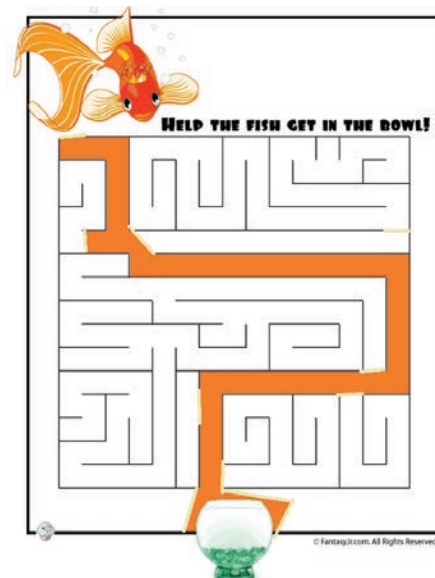


IT'S ALIVE

See if you can match up the common names with their corresponding scientific names of the livebearers below.

Common Name	Scientific Name
Mosquitofish	<i>Poecilia wingei</i>
Liberty Molly	<i>Gambusia affinis</i>
Celebes Half Beak	<i>Belonesox belizanus</i>
Four-Eyed Fish	<i>Poecilia salvatoris</i>
Pike Livebearer	<i>Heterandria formosa</i>
Red-tailed Goodeid	<i>Xenotoca eiseni</i>
Endler's Livebearer	<i>Nomorhamphus liemi</i>
Least Killifish	<i>Anableps anableps</i>
Dalmatian Molly	<i>Xiphophorus maculatus</i>
Mickey Mouse Platy	<i>Poecilia latipinna</i>

Solution to our last puzzle: Goldfish Quest



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