

modern AQUARIUM



September 2018
volume XXV
number 7

Greater City Aquarium Society - New York

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Series III Vol. XXV, No. 7 September, 2018

ON THE COVER

This month's cover photo choice was inspired by the subject of tonight's speaker, Kevin Kelly, aquascaping. This being a favorite topic of our former president Joe Ferdenzi, Joe sent me a few relevant photos to choose from. I hope that you (and he) will be pleased with it.

Photo by Joseph Ferdenzi

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From the Editor

by Dan Radebaugh

We have a couple of major events informing this month's issue. First is our release of Rosario LaCorte's autobiography, **An Aquarist's Journey**. It is now available on Amazon.com, and Rosario will be on hand at our October meeting to sign your copies. Don't miss this opportunity! Who knows when or if it will come again?

The other major event is of course the untimely passing of Sharon Barnett. Sharon retired and moved out to Long Island a few years ago, so some of you unfortunately didn't know her. You'll see a couple of tributes to her in this issue. Please read them! Just in terms of **Modern Aquarium** Sharon was a major force. She hadn't been writing as much of late, but those of us who have been around for a while will remember her Gypsy Mermaid column. She did continue as one of our valued proofreaders for **Modern Aquarium**, even if more lightly involved. For the past few years she would wait until our other proofreaders had finished their work, and then give it a final pass. I must tell you that she nearly always caught something that the rest of us had missed (but of course that's the nature of

proofreading). She sent me one last correction the day before I received word of her passing.

My wife Marsha and I made the trip out to LI to attend the service in her honor, but there was some confusion as to the actual time, so after a very nice chat with Sharon's sister, we had to catch an early ride home with Joe Ferdenzi, who graciously dropped us off at an LIRR station. Much appreciated!

Joe also sent us the photos below to include in this tribute. We hope you enjoy them!





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	Gary Hater <i>Goldfish</i>
November 7	Rusty Wessel <i>TBA</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

Back by Popular Demand—**A Night At The Auction.** And what a night it was! We recruited four new members, and our raffle was a huge success! Pete d'Orio outdid himself, bringing in about twelve high-priced items, compared to our normal thirty to forty less expensive items. He had strict orders from Vice President Pence (Ed), and we all know how Pete follows orders.

As fate would have it (or call it beginner's luck), one of our four new members won twice: the number one pick of the raffle, a \$300 tank with a wooden stand and cabinet donated by Monster Aquarium, and a \$100 setup, also donated by Monster Aquarium (Please support our contributors!). And it was not even fixed! I did not have even one raffle ticket hidden in my shirt sleeve. And we even sold the raffle tickets for the usual amount! Of course that's because we don't have many big spenders in our club—they seem to belong elsewhere.

Artie realized we needed help with the ticket sales, so his adrenaline kicked in, and with his powerful voice he advertised all the high priced items. By the time we were ready to pull the tickets out of the jar, I would guess that he had tripled the number of tickets we sold! If he keeps that up I'll have to nominate him to be the next President! That's OK, Artie, you don't have to thank me.

It was nice to to see the large attendance. It could be that auctions attract a large crowd; or maybe it's the camaraderie we have here. We had at least seventy members present. Bargains Galore Ed started with low bids, and I think everyone went home satisfied, including myself. I outbid everyone for some plant food that I really needed!

On a somber note, it was with great sadness that we had to say farewell to Sharon Barnett—gone from our midst at too young an age. One memory of Sharon comes back to me. When Sharon was bidding at an auction, you might as well drop out sooner than later; she would not drop her hand until she had secured her prize. On one such occasion she was the successful bidder on Flourish, an aquarium plant food. I congratulated her, and told her that it is a very good product. She asked me if I used it, and when I said that I did, she handed it to me and said, "Take it!" I protested that she had just outbid me for it, but she said, "I didn't really want it. I just started bidding for the fun of it, and didn't take my hand down because I hate to lose." That was Sharon!

The meeting ended early, with everyone on their way home by 9:30 to put their newly acquired prizes into their new habitats.

Until next month...

Horst



BOOK SIGNING EVENT!

At our Greater City A.S. meeting on October 3, Rosario LaCorte will be with us to personally sign his new book, *An Aquarist's Journey*. Order your copy now!

A Tribute to Sharon Barnett

by Joseph Ferdenzi

When Sharon passed away on July 29, a Sunday, it was a terrible loss for us all. It was a loss that came way too early. Sharon was only 60 years old, and she retired from her job as a court clerk only three years earlier. It was a retirement she had looked forward to with great anticipation, so that she could spend time with her family, especially her younger sister Lisa and Lisa's twin daughters.

She also hoped to have more time for all her many interests: tropical fish, gardening, sewing, jewelry making, reading—just to name a few! How do I know all this? Well, for more years than I can count, Sharon and I were monthly dinner companions, and I count myself blessed for having had those opportunities to share a meal and lively conversation with her.

Sharon worked as a court clerk at the Bronx County Hall of Justice, and as it happened, I worked right across the street. So every first Wednesday of the month, I would drive Sharon to the Greater City meeting. Sharon did not drive—just one of the many phobias she had, which she readily joked about, and regarding which I would always tell her that if I wrote a book about them it would run into the hundreds of pages! That always made her laugh!

Before the meeting, we would always have dinner together at our favorite haunts, usually an Afghani or Chinese restaurant. Of all my dinner companions, Sharon was the most daring with cuisine (other than me—as Sharon well knew, I'd eat anything!). We'd have fun trying new things all the time. Sometimes

the dishes were hits, and other times we'd agree that once was enough.

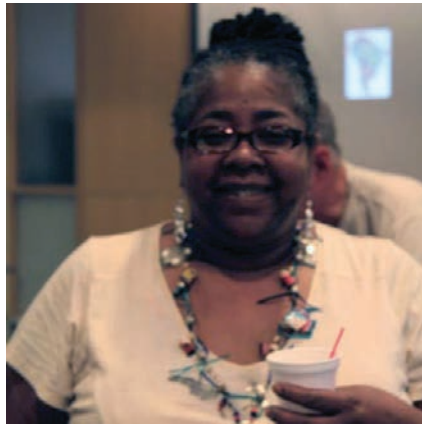
But what never went out of style were the eclectic conversations. We'd talk about nearly everything. Family was a favorite topic, but so was our respective work, food, gardening, and, oh yeah, tropical fish!

After our dinner, we'd walk to the meeting. There, Sharon would sit in her favorite chair—yes, she had a familiar spot, everyone knew it, and no one would dare sit in it—first chair on the right (as you face the staircase), in the first row. When the monthly auction started, everyone behind her could clearly see her bids (which she always won!).

Sharon loved our hobby. She started and ran our Society's Facebook page. She wrote numerous articles for this magazine, **Modern Aquarium**. She attended both AFISH conventions, which were co-sponsored by Greater City, in 2007 and 2008. And, most memorably for me, she once accompanied me on a long, weekday road trip to the Bucks

County Aquarium Society in Pennsylvania, where I had been invited to speak. It would have been a lonely trip, but Sharon made sure that it was not, by volunteering to come along.

I could go on and on about Sharon, but my tears are starting to ruin the paper on which I'm writing. She was taken from us much too early. I want to leave my thoughts and prayers with her family, who have suffered a most grievous loss. As for me, her memory will be with me forever.





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My Friend Sharon

by Susan Priest

Sharon Barnett, also known to most of you as our “**Gypsy Mermaid**,” has made an untimely exit from her earthly life. She was always with a smile, and up until her retirement a few short years ago she never missed a GCAS meeting. She was very active on Facebook, and many of you have known her on that venue.

Victorian cichlids were her most favorite fishes, but she was experienced in keeping virtually all freshwater tropicals. She often shared her fishkeeping knowledge with the rest of us in her column **Mermaid Tales**, which has sporadically appeared in the pages of **Modern Aquarium**. (All of our back issues are available at the GCAS website where copies of her articles can be found.)

It is impossible to describe the level of her generosity. I remember a holiday party when she was bidding against one other person on a bag of fish. This person was sitting behind her, and she couldn't see them. After she had won the bag of fish she asked me who the other bidder was. I pointed him out to her, and she handed him the bag of fish. Also, she would spend at least \$30.00 on raffle tickets. She would proceed to win most of the items, and then hand them out to other members. These are just two examples of her very generous nature.

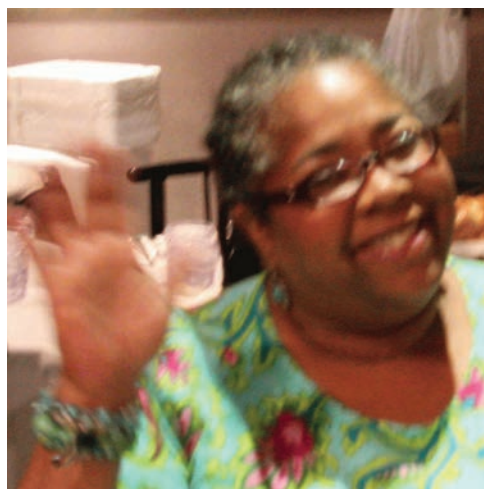
As we got to know Sharon better, and we learned that, like Al and myself, she lived in the Bronx, we suggested to her that we might be able to drive her

home after the meetings. Well!! This turned into one misadventure after another. Why? Because she couldn't tell us how to get there. In so many words, she didn't know where she lived! She

could tell us that it was in the shadow of Yankee Stadium, and near the two Bronx courthouses. Every month we would try a slightly different route on the back streets leading up to the Grand Concourse. Eventually we established a reliable route. **She** still didn't know how to find her building, but **we** finally did!

On these many rides home we found out that she loved to read, she was a science fiction fan (as are we), and she held jewelry making classes on her lunch hour at the courthouse where she worked. (I have a box full of earrings and bracelets which she made just for me.) She would binge watch entire seasons of her favorite TV shows, and she loved gardening.

Sharon was younger than most people when she retired. She moved to Long Island to be with her sister, nephews, and beloved twin nieces. We didn't see her at GCAS meetings after that, and she has been very much missed since then. I always looked forward to seeing her, and to her ever-present smile. She loved life, and she shared that love with everyone she met. Sharon received a higher calling on July 29th 2018. Rest in peace, my dear friend. I have no doubt that your smile is living on, and that it is lifting the spirits of everyone around you.

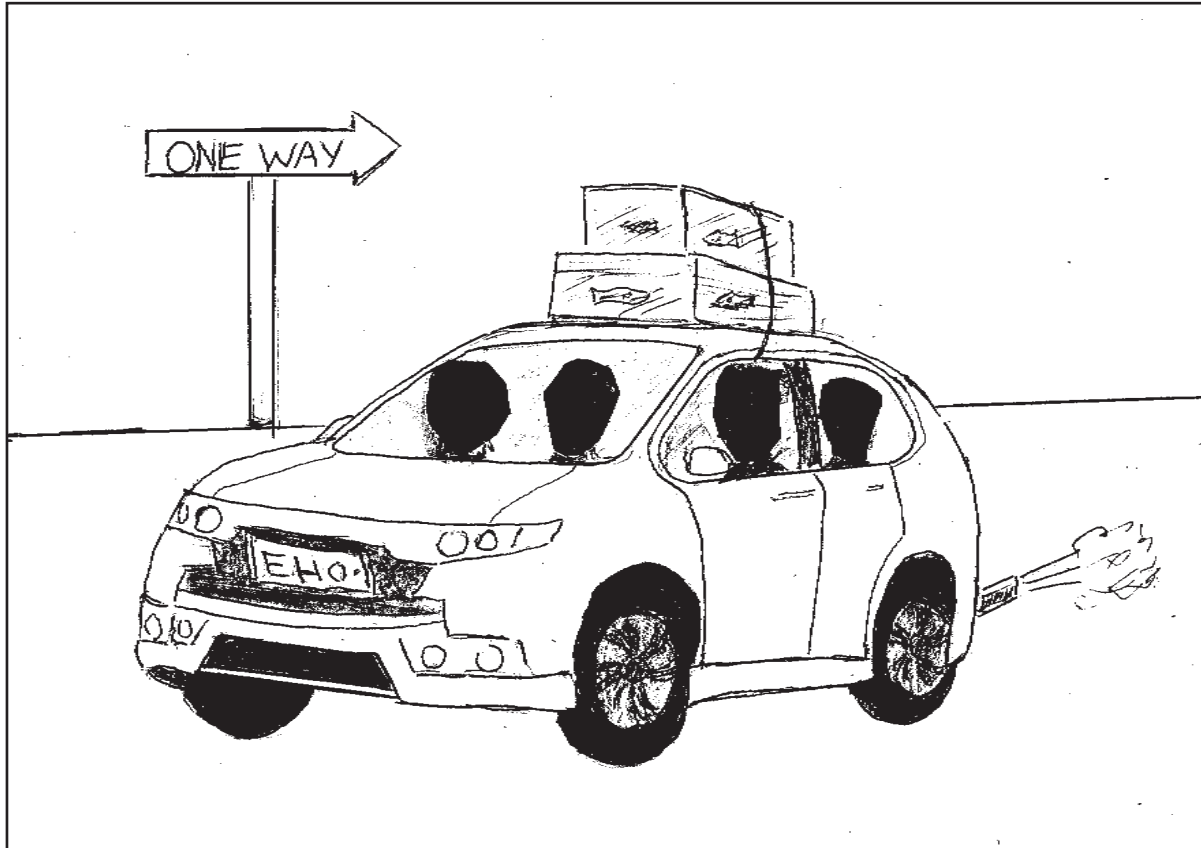


Sharon Barnett

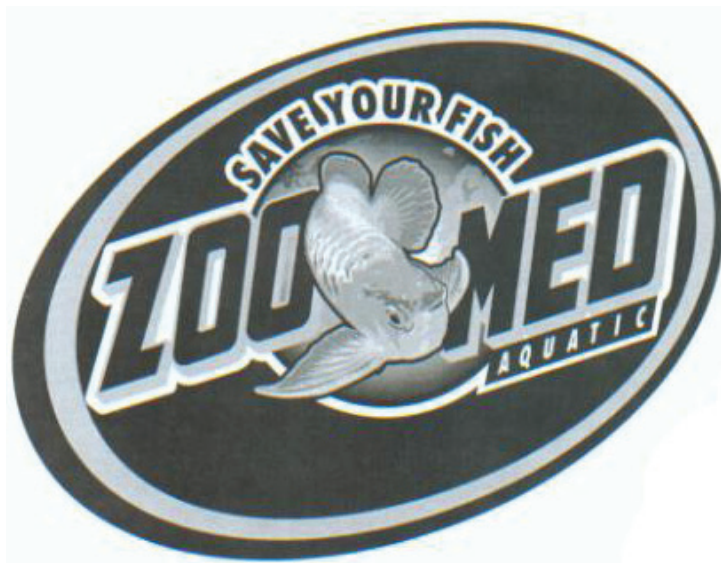


August's Caption Winner:

Ron Webb

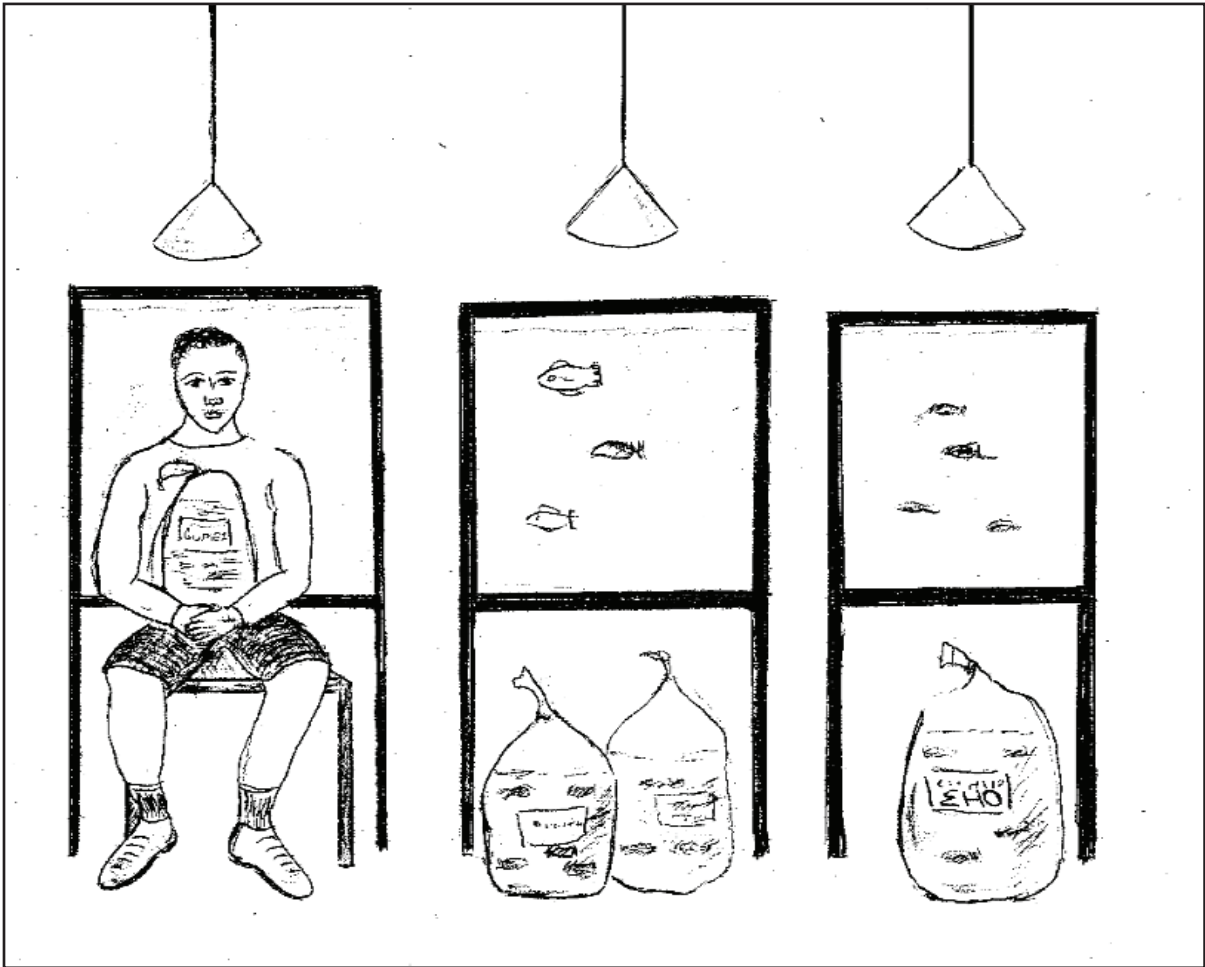


Lost Fish-Car-Go!



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:



2017 FAAS Publication Awards

The Federation of American Aquarium Societies (FAAS) publication awards program recognizes the efforts and contributions made to promote interest in the tropical fish hobby. The results of the 2017 judging are below. You can find the



titles of the winning articles and columns at:

<http://faas.info/index.php/publication-awards/past-winners2/48-2017-award-winner>

Best Editor/Publication > 6 Issues

1 Dan Radebaugh GCAS

2 Karen Murray KWAS

Best Marine Article - Invertebrates

1 Anthony Kroeger BnAS

1J3 Zack Brideau KWAS

Best Editor/Publication 6 Issues or Less

1 Gerald Griffin FOTAS

2 John Todaro BnAS

Best Article on Aquascaping or Design

1 Joe Ferdenzi GCAS

2 Karen Murray KWAS

Best Changing Cover Original Art

1 Karen Murray KWAS

2 Dan Radebaugh GCAS

3 Gerald Griffin FOTAS

Best Article on Plants

1 Jelle Faber KWAS

2 Anthony Kroeger BnAS

3 Dr. Glenn Roberts KWAS

Best FAAS Related Article

1 Gerald Griffin FOTAS

2 Gerald Griffin FOTAS

3 Alexander A. Priest GCAS

Best Show Article

1 Gerald Griffin FOTAS

2 Jules Birnbaum GCAS

3 Clay Trachtman FOTAS

Best Review Article

1 Jules Birnbaum GCAS

2 Karen Murray KWAS

3 Barry Chaffe KWAS

Best Do it Yourself

1 Gerald Griffin FOTAS

2 Dr. Glenn Roberts KWAS

3 Jerry O'Farrell GCAS

Best Spawning Article < 500 words

1 Al Ridley KWAS

2 Dan Radebaugh GCAS

3 Terry Clements KWAS

HM Terry Clements KWAS

Best Article on Society Management

1 Gerald Griffin FOTAS

2 Zenin Skomorowski KWAS

Best Spawning Article 500 to 1,000 words

1 Jules Birnbaum GCAS

2 Ed Vukich GCAS

3 Zenin Skomorowski KWAS

Best Article on Health or Nutrition

1 The Undergravel Reporter GCAS

2 Anthony Kroeger BnAS

3 Karen Murray KWAS

Best Spawning Article More than 1000 words

1 Robert Channen KWAS

Best Traveling Aquarist Article

1 Greg Steeves FOTAS

2 Gerald Griffin FOTAS

3 Stephen Sica GCAS

Best Article on a Genus of Fish

1 Anthony Kroeger BnAS

2 Anthony Kroeger BnAS

3 Tom Warns GCAS

Best Humorous Article

1 The Undergravel Reporter GCAS

1 Stuart Morley KWAS

2 The Undergravel Reporter GCAS

3 The Undergravel Reporter GCAS

Best Article on a Species of Fish

1 Greg Steeves FOTAS

2 Anthony Kroeger BnAS

3 Anthony Kroeger BnAS

HM Stephen Sica GCAS

Best Original Artwork

1 Elliot Oshins GCAS

2 Elliot Oshins GCAS

1 - J3 Lauren Ramroop GCAS

Best Cartoon

1 Elliot Oshins GCAS
2 Elliot Oshins GCAS
3 Elliot Oshins GCAS

Best Conservation-related Article

1 Anthony Kroeger BnAS
2 Anthony Kroeger BnAS
3 Anthony Kroeger BnAS
HM Claudia Dickinson GCAS

Best Continuing Column

1 The Undergravel Reporter GCAS
2 Dan Radebaugh GCAS
3 Alexander A. Priest GCAS

Legend:

GCAS - Greater City Aquarium Society - Modern Aquarium
KWAS - Kitchener-Waterloo Aquarium Society - Fins and Tales
FOTAS - Federation of Texas Aquarium Societies - Fish Tales
BnAS - Brooklyn Aquarium Society - Aquatica
HM - Honorable Mention
J2 - Junior: 11 to 13 years of age
J3 - Junior: 14 to 18 years of age

Best Article, All Other Categories

1 Elliot Oshins GCAS
2 Valaree Baker FOTAS
3 Joe Ferdenzi GCAS
1 - J2 Linda Kloetstra KWAS

Author of the Year

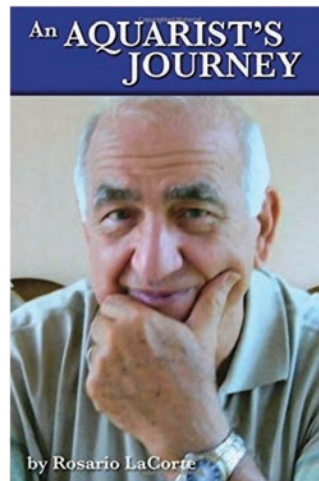
1 Anthony Kroeger BnAS
2 Gerald Griffin FOTAS
3 Elliot Oshins GCAS

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



BOOK SIGNING EVENT!

At our Greater City A.S. meeting on October 3, Rosario LaCorte will be with us to personally sign his new book, *An Aquarist's Journey*. Order your copy now!

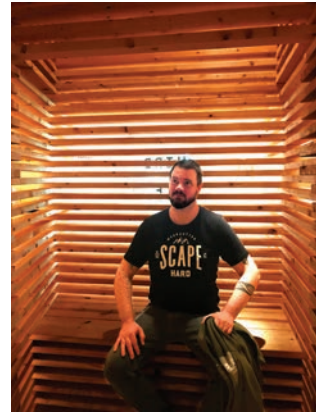
Tonight's Speaker

Kevin Kelly, on Aquascaping: Basics to Expert, with Art Theory

Kevin Kelly, aka Rossfett, is a Brooklyn based graphic designer and illustrator who has been keeping planted tanks since 2003. A former skatepunk turned mad scientist, Kevin's dual curiosities about left and right brain led him to pursue formal education in both science and art.

Kevin has spent ten years providing creative and engaging visual design solutions for clients across the spectrum—from non-profit to high fashion. Aquascape design and installation represents the ultimate mix of Kevin's obsessions: the perfect balance of art and science. To this end, he created Brooklyn Hardscape, first as a dedicated aquascaping competition group, and now a small business dedicated to aquascaping.

Its mission is to further the art and craft of aquascaping and design in planted tanks. When he's not elbow-deep in plants, you can find him flinging paint at canvas, both physical and digital.



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Hitchhiker's Guide To The Ocean

Story and Photos by Stephen Sica

In the past I have written an article or two about the unique nature of relationships that I have observed in the oceans. I recall a foureye butterflyfish, *Chaetodon capistratus*, that hosted an isopod. At the time, I thought that the strange looking isopod was some sort of an ugly bloodsucking parasite. I guess that it really was. The poor fish ignored it, but I'm sure that the isopod was an inconvenience. A scientific study claimed that butterflyfish without isopods were chased more frequently by damselfish, fed more, and had larger territories. It seemed that isopods that attached themselves to butterflyfish refused to let go in order to enhance reproduction of the species.

Why a damselfish would chase away a butterflyfish is open to conjecture. I would offer that these fish did not want to become hosts. I have only observed isopods on fish twice, so I don't know if one would hitchhike on a damselfish, but why take a chance? Anyway, it appears that isopods modify the behavior of the foureye butterflyfish in order to more easily meet potential mates or pass their offspring onto new host fish.

Last November while diving in Key Largo, I did observe a parrotfish that had a remora-like fish slithering about its body. In fact, it swam right by me, and I had all that I could handle to photograph it on

the fly—or should I say on the swim? I panned my camera and took one quick photo. I assumed that I missed the fish because it was so close. I rarely review my photos immediately after I take them. Sometimes I look at them on the boat ride back to shore, if I want to

show something to Donna. Typically, I'll review them over lunch or dinner, or while resting in our room later in the day.

Well, I looked around to make sure that my companions were within hailing distance and started tracking the parrotfish. Later, after Donna had reprimanded me for disappearing for what I deemed to be only two minutes, I told her that I shouted into my mouthpiece

that I was taking a detour. That sort of reply warranted another look from my wife. Luckily, I've built up a fairly weak resistance to her looks so I'll leave it up to your imagination to guess what she said.

A few weeks ago, I watched some "Shark Week" episodes on the Discovery channel. Perhaps I should get one of those full face masks, so that I could talk to the surface, and I assume, other divers such as my wife. But she'll need a special mask also. Did you ever consider how a voice is transmitted through the water? Do they use long thin wires? I'd never really thought about it. Is the technology so advanced that perfectly intelligible speech sound waves travel through the



A princess parrotfish, *Scarus taeniopterus*, about a foot long rushed past me with a smaller fish attached to its lower rear. I panned my camera toward the fish for this one photo.



A short time later I spied the parrotfish hovering near coral. The attached fish relocated itself to the lower front. I assumed that the hitchhiker was a remora or similar. It was difficult to tell if the fish was firmly attached.



The remora-like fish is a whitefin sharksucker, *Echeneis neucratoides*. A member of the remora family, the sharksucker kept repositioning itself about the princess parrotfish as I trailed the pair while taking photographs.



The parrotfish settled on the sandy bottom near coral, allowing a clear image of both fish. The depth was about thirty feet.



After taking several photos I abandoned the parrotfish and its hitchhiker, in search of fresh subjects. Later, I happened upon the fish again as it swam toward me.



With a new opportunity, I photographed the unlikely pair of fish again while trying to get closer.



I took another close-up before finally abandoning my pursuit of these fish.



Underwater in the Florida Keys offers more than parrotfish. Here Donna sneaks up on a resting nurse shark, *Ginglymostoma cirratum*. Nurse sharks always seek protective nooks in the reef.

water? Is it done electronically, or digitally? It might become a shocking experience! It really wouldn't be practical for Donna and me. She doesn't like anything covering her ears, so imagine a big mask over all your face. Imagine if the mask fogged up and you couldn't see. Don't laugh. This can happen if you don't break in a new mask, or there might be a large temperature difference on either side of the glass. The secret ingredient for breaking in a mask is to extensively rub both sides of the glass with a harmless abrasive, such as toothpaste. It fills in the glass's pores, since glass is really not smooth. Enough of this; I couldn't afford to purchase two wireless full face masks anyway.

Back to the parrotfish. They are usually comfortable in the presence of divers. At least most of these fish let you get fairly close to take a picture or make an observation. I started to follow the parrotfish with the attached satellite fish rather nonchalantly. Don't turn and point the camera right at it. Look like you're just another creature in the sea, just passing by. Luckily, the parrotfish started swimming near the sandy bottom, using the reef for partial cover. I hovered about eight feet away and took a few photos. The smaller fish attached to it would shift its position. I wanted to photograph both fish clearly, but it was

going to be difficult. I invested a minute or so, and then moved on. I think that I recall seeing the fish again on the reef. The parrotfish stayed near the bottom, and whenever I saw it during the course of our dive, I took a photo.

After reviewing my photos I concluded that the fish was an adult male princess parrotfish, *Scarus taeniopterus*, and its hitchhiker was a member of the remora family, a whitefin sharksucker, *Echeneis neucratoides*. A very similar remora family fish is the sharksucker, *Echeneis naucrates*. It was definitely a sharksucker.

Proper fish identification is often difficult. Occasionally, a sharksucker or remora will attach itself to a diver—usually to the air tank. I have witnessed this bit of undersea humor. The fish can be removed by pushing it forward; this loosens its suction.

When everything is said and done, this is yet another example of the interesting relationships among the ocean's wildlife. Some animals prosper from these relationships, while others may be less fortunate in such a diverse and unique natural world.



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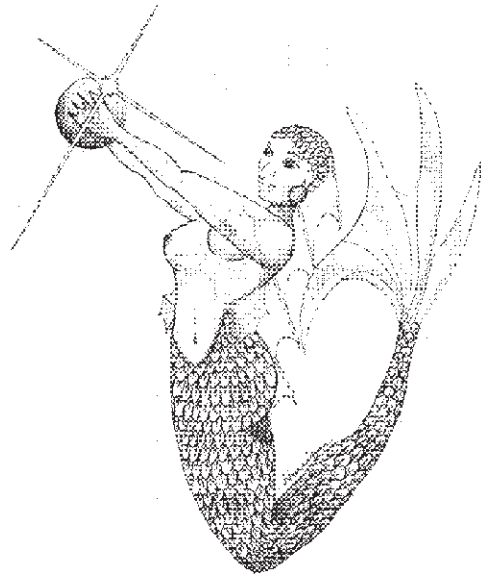
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Mermaid Tales



Text and photos by
"The Gypsy Mermaid"
(A.K.A. SHARON BARNETT)

TAKASHI AMANO I AM NOT! BUT I LOVE MY JUNGLES!

Reprinted from *Modern Aquarium, Series III* Vol. XV, No. 7, September, 2008.

I absolutely love the underwater Zen gardens that Takashi Amano creates in his tanks. His delicately balanced, carefully planned aquascapes are breathtakingly beautiful, and a delight to behold. However, I am cheerfully incapable of the discipline required to complete and maintain them. I've read a lot about the proper setup of planted tanks, and I usually start out fully intending to follow those guidelines, but somewhere along the way those good intentions always fall by the wayside and I end up with one of my signature junglescapes.



The photos shown here are of my 55-gallon planted tank, taken from slightly different angles. The plants visible are: *Hygrophilia* sp., *Cryptocoryne* sp., *Aponogeton ulvaceus*, *Echinodorus* sp., *Rotala wallichii*, *Vallisneria* sp., *Aponogeton crispus*, *Anubias nana*, and dwarf *Sagittaria*.

Most, if not all, of the plant books suggest that you should plan your aquascape in advance so that



you can achieve the right balance. They have these great diagrams that show you how to lay out your garden, even including proper placement of rocks and driftwood. Unfortunately, planning has never been one of my strong suits. I see a plant that I want, I buy it, bid on it, or trade for it, then I find an empty spot for it in my tank. Usually, that is not the spot that folks like the accomplished designers in the Aquatic Gardener's Association would have chosen. Oh, well.

For instance, I know that taller plants belong toward the back of the tank, but I just can't resist sometimes plunking a clump of *Vallisneria* right in the front of the tank. Of course, that can obstruct my view of the fish, but I kind of like viewing them through a curtain of val—it's sort of like peeking into a slice of a natural habitat. Just call me a wild and crazy rebel!



Elassoma okefenokee

The Okeefenokee Pygmy Sunfish

by Mike Hellweg



There are seven species of pygmy sunfish in the genus *Elassoma*. This genus is endemic to lakes, ponds, swamps, ditches, and other areas full of plants and with slow water flow in the Eastern USA. They are called pygmy “sunfish,” though most scientists currently consider them more closely related to sticklebacks than to the larger sunfish. Four of them are commonly available in the hobby: *Elassoma zonatum*, the most common and widespread—even found in Missouri, *E. okefenokee*, *E. evergladei*, *E. gilberti*, and three which are pretty rare (*E. alabamae*, *E. boehlkei*, and *E. okatie*), both in the wild and in the hobby. *Elassoma okefenokee* is found from central Georgia to southern Florida, and can be common where it is found.

E. okefenokee is often overlooked when collecting because of its small size, plain color, and the fact that it spends much of its time hiding in the plants. I have now kept and bred three species of pygmy sunfish, and it has so far proven to be the most gregarious and outgoing of the three. Using “gregarious and outgoing” is a stretch, as the most you are likely to see beyond feeding time is the head of the male peeking out of his chosen hiding spot.

As might be expected from a fish with a fairly wide distribution, they are not too choosy about water parameters. Our local water seems to make them very happy. They are not demanding about water temperature, as long as it doesn’t get too warm. I have kept all three species in similar conditions. In fact, over time I’ve had success with them in the same exact tank! I have kept them in pairs, with no other fish or inverts in the tank, save for daphnia, which are kept in the tank at all times.

This tank is a 5 gallon cube tank made long ago by Ralph Wilhelm, who excelled at taking cracked or smashed tanks and turning them into something useful. Ralph’s only rule: it had to hold water and you had to be able to see through one side. He made these cubes out of the end panes of salvaged 10 gallon tanks with a juryrigged frame. They are very useful for breeding killies and other small fish that can be kept in pairs, including the pygmy sunfishes.

The tank is set up with a pile of fine-leaved plants—just trimmings from other tanks—but a big pile is a necessity. You can even just use a single plant like Java moss, or even just a big ball of hair algae (there is some good use for hair algae!), but you’ll

Reprinted from *The Darter* – March/April 2017 Volume 43, Number 2; Missouri Aquarium Society.

need to fill the tank about three quarters full. I add a couple handfuls of crushed coral as a substrate, a light on a timer, and a sponge filter. That's it!

I set it up in an area of the basement that is not insulated, so it experiences temperature fluctuations from month to month, and even over the course of a single day. They are not too demanding of aquascaping, and you won't see them often except at feeding time. Some hobbyists even set them up in a gallon pickle jar with nothing but an airstone and a pile of plants! More on this method in a bit.

The key to keeping any of the pygmy sunfishes is live foods. They will NOT eat flakes, pellets, frozen, freeze-dried or gel foods (in spite of what one gel food manufacturer claims!). If it ain't movin', they won't eat it. They absolutely love worms. Adults will take a whole live blackworm, even though the worm is longer than they are.

When trying to get them to spawn, I feed them at least twice a day. I generally feed Grindal worms 4 or 5 times a week, and keep live Daphnia in the tank as well. When they are mostly eaten, I will add more. Daphnia tend to swim in open areas, so it is easy to see when the population is depleted. The pygmy sunfishes will eat them as they swim by, but they will rarely chase daphnia down.

Both adults and fry will eat live baby brine shrimp, and I add those to the tank every day as well. Additionally, the tank has an established population of benthic copepods, which can be seen as tiny white dots that crawl all over every surface in the tank. I believe these are key to success. Adult pygmy sunfish ignore them, but fry and juveniles can be seen carefully stalking them.

With a lot of live food, you'll soon be able to see that the male is happy. He'll color up and look like a completely different fish. Instead of the day to day grayish brown, he will darken in color until he's almost black (or dark gray dependant on where the population originates), with blue spangles on his flanks. He will also spend much more time in the open. My guess is that in the wild, this is when they seek mates. The female will swell with eggs, but that's relatively academic, as you'll likely almost never see her.

The male courts the female with his best colors out in the light, and after a brief spawning event of

diving into the plants side-by-side, they pretty much ignore one another again. Some authors claim that the male actually makes a sort of nest in the plants, but I have not seen that with my fish. Other authors have claimed they are simply egg scatterers. Either way, the plants are so thick I usually just see the male's head in a small clearing in the tangle of plants.

I have yet to see eggs, but once I start seeing fry darting in the plants near the bottom or among the gravel on the bottom, I remove the parents. They are tiny, about the size of tetra or barb fry, and spend most of their time hiding in the plants, or on the bottom in the interstices of the gravel, and I often don't see them until they are free-swimming for a few days and already eating. They can usually find enough food on the plants' surface until they are big enough to take microworms or even baby brine shrimp.

They seem to love hunting the copepods. You can watch individual fry stalking and pouncing on them, and can tell they are eating, as they usually have a rounded belly. The belly is whitish to grayish when eating naturally found infusoria, copepods or microworms, and later bright orange when they start eating baby brine shrimp; usually at about 10 to 12 days old.

It's pretty cool to see these bright orange bellies with a set of eyes moving in among the plants. If it weren't for the orange bellies it's likely I wouldn't be able to see them

at all! In fact I once didn't see any fry at all until I went to move the parents to a different tank—surprise! There were a baker's dozen young Okeefenokes swimming in the tank, each about three-eighths to a half inch long!

Once I see fry, I'll usually move the adults to a different tank set up the same way, and start feeding the now "empty" tank heavily with live newly hatched brine shrimp (bbs) and microworms. The young fry eat ravenously and grow fairly quickly. Usually, if you leave the adults in the fry tank for too long, the fry will disappear. I'm not certain whether the adults are eating them, or are just outcompeting with them for food.

I mentioned the pickle jar method earlier. That is a way that several advanced hobbyists have concluded that these species spawn the most reliably. Keep a group of adults in a larger tank, say 10 or 15 gallons. Feed them heavily with live foods. When males are



Elasmoma okefenokee

colored up and sparring with one another and females are obviously filled with roe, separate several pairs and move them to the one-gallon pickle jars; one pair or trio per jar. Add a large clump of Java moss or other fine leaved plant—enough to nearly fill the jar. Top it off with water from the tank, and add live daphnia.

Keep adding daphnia every day, or as often as the population seems to be depleted. This appears to keep the adults from eating all the eggs. Leave the adults in the jar for several days, and then move them back to the main tank, or to another similarly set up jar. Watch and wait. Usually within a few days you'll start seeing fry darting about. Add a small airstone bubbling slowly, and start feeding microworms and baby brine shrimp at least twice a day. After about a month, you can move them to a 5 to 10 gallon tank by gently pouring the jars into it. You should get a few to several dozen fry.

While all of this makes it sound like they're easy to spawn, realize they are 20-point species in the BAP for a reason. They HAVE to have live food every day, and sometimes it can take nearly a year before you'll get a spawn out of a pair...and then they die! They only live for about one to two years, so if you get them as adults, try to set them up to spawn as soon as possible. They also don't seem to do as well unless you let the tank warm and cool naturally over the course of the year. So be aware of their special needs, but don't be afraid to give them a try if you can meet those needs.



Editor's Note: For further reading on this species, see "Swamp Thing," by Al Priest, in the April 2006 issue of **Modern Aquarium**.

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.

The Aquarium Plant That Gets No Respect

Story and Photos by Jules Birnbaum

When I bring to our auction a healthy bunch of this plant that can be floated or planted, I sometimes have to take it home because there was no bid. Even when there is a bid it sells for one or two dollars per bag. Online it sells for \$4 per bunch. Some call it a weed. By now you might have guessed that this common aquarium plant is the *Ceratopteris thalictroides*, common name Indian water fern, or water sprite. The word "sprite" in Latin means "spirit." The plant is found in Asia, Africa, South and Central America, and Australia.

It normally grows fast. In any size aquarium it can and will grow out of an opening at the top. It forms beautiful long green leaves. The roots hang down from the surface in a large bunch. It can also be planted in substrate, or as I do, in small flower pots.

Water sprite is excellent at removing unwanted and unhealthy inorganic nutrients from the aquarium water, helping keep algae to a minimum. It also offers good shade for any low light plants below. Success with this plant comes with some trial and error. In my tanks containing this plant the algae has disappeared. The plant and its roots are easy to trim, which I do periodically with a pair of scissors. If you are breeding fish the plant's roots can act as a natural mop for fish to deposit their eggs and a hiding place for fry. I've bred rainbow fish in a 20 gallon (long) tank containing a large mature water sprite with a large bunch of roots hanging to the tank bottom (no substrate).



In order to grow the plant successfully, the tank should have good lighting, kept on for 10 or 11 hours a day. I also do a 50% water change once a week, and at that time add Flourish Exel™ in a turkey baster. I try not to disturb the plant, because the leaves are easily damaged. I want the roots to hang straight down toward the substrate and provide an interesting look when fully mature. I've found that the more I trim the leaves that are spreading outward, the healthier and fuller the plant looks.

Temperature is flexible, from 68 to 86 Fahrenheit, with a pH of around 7. My tanks containing water sprite range in size from 5 to 55 gallons. The plant propagates like any fern; plantlets form on the mother plant. I control this by removing these small young plants, and either grow them out in another tank, bring them to our auction, or just give them away. I've found that my Central and South American cichlids, which normally attack most plants, don't bother with water sprite floating on the surface. Some snail species will eat the soft leaves, but since I don't have such snails I'm not sure which ones will eat the plant.

I hope you now have some respect for the plant that gets no respect.



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!



Attendees at the Second Annual

Photos by Joe Gurrado, Marsha



GCAS “Night at the Auction”

Radebaugh, and Jules Birnbaum

We warmly welcome our newest members:



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Pamela Lehto



Ryan Enriquez



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A SPECIAL WELCOME TO NEW GCAS MEMBERS RYAN ENRIQUEZ, RODERICK GRIFFIN, BRENDA PROHASKA, AND PAMELA LEHTO!

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

GREATER CITY AQUARIUM SOCIETY

Next Meeting: October 3, 2018

Speaker: Gary Hater

Topic: *Goldfish*

Meets: The first Wednesday of each month (except January & February) at 7:30pm:
Queens Botanical Garden
43-50 Main Street - Flushing, NY

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: September 14, 2018

Speaker: Justin Spall

Event: *Setting Up A Plant Room*

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

NY Aquarium - Education Hall, Brooklyn, NY

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

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

LONG ISLAND AQUARIUM SOCIETY

Next Meeting: September 21, 2018

Speaker: TBA

Topic: *TBA*

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: September 11, 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: September 8, 2018

Speaker: Sal Silvestri

Topic: *Keeping and Breeding South American Dwarf Cichlids*

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.nj.com

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

NORWALK AQUARIUM SOCIETY

Next Meeting: September 20, 2018

Speaker: Kevin Carr

Topic: *King of the Monsters*

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/>

Caught Red Handed

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"

The known population of one of the world's rarest fish has just doubled, thanks to a lucky find in the waters off Tasmania, Australia.

Meet the red handfish, a name that reflects the hand-shaped fins on the sides of its body. The striking creature doesn't really swim — it "walks" slowly along the seafloor. And until recently, researchers say they were aware of only one colony of the rare animals, with around 20 to 40 fish.

A team of seven divers from Australia's Institute for Marine and Antarctic Studies and the Reef Life Survey heard reports that a red handfish was seen in another area and went down to investigate. After two days of fruitless searching, they were about to call the mission off when IMAS technical officer Antonia Cooper spied a red bottom-dweller.



A new population of the rare red handfish, which gets around by "walking" slowly along the seafloor, has been found off Tasmania, Australia.

Antonia Cooper

threatening this species, and many others.

Perhaps some of our members who have written in these pages of their scuba diving adventures in exotic places (you know who I mean) can visit Tasmania and give us a first hand account of meeting this fish (or is a creature with a Mohawk style head that walks with its hands **really** a fish)?



"I was halfheartedly flicking algae around and, lo and behold, found a red handfish," she says in an IMAS video. "Once we found that first one, I signaled to the other divers that we had a sighting, which meant we could then focus our search area to that same spot. And sure enough, in a 50-meter-by-20-meter area, we discovered another eight fish."

The scientists think that the new colony has another 20 to 40 fish. And it's "a number of kilometers away" from the other known group. Because handfish move so slowly, that suggests that they are genetically distinct.

"It means there's potentially a bigger gene pool and also that there are potentially other populations out there that we're yet to find, so it's very exciting indeed," Cooper said.

The species has recently gone through a "marked decline," according to the Australian government. It is believed to rely on green algae as a place to spawn, and that environment is being degraded because of an increase in a sea urchin population that grazes on the algae.

Rising water temperatures are also

Reference:

<https://www.npr.org/sections/thetwo-way/2018/01/26/580977484/one-of-the-world-s-rarest-fish-is-a-little-less-rare-than-we-thought>



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Z	Z	B	E	S	A	S	A	N	R	T	H	G	H	T	A	H	O
Q	N	A	P	N	J	X	A	L	D	E	X	S	S	C	R	E	O
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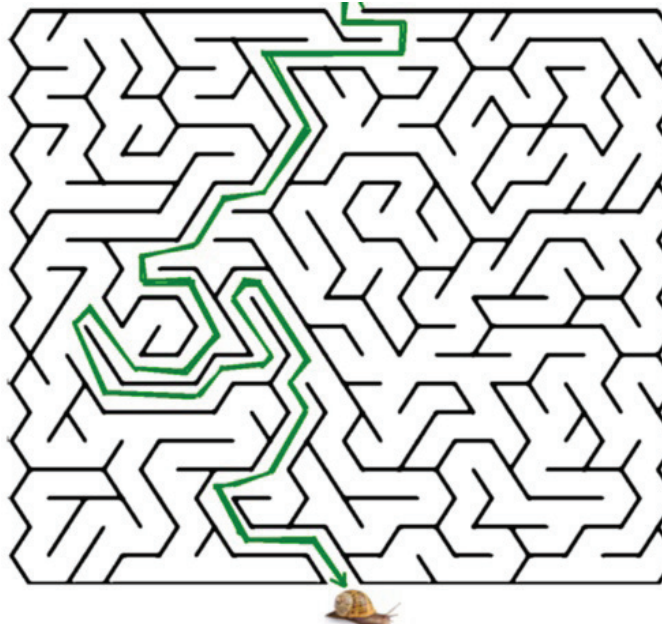
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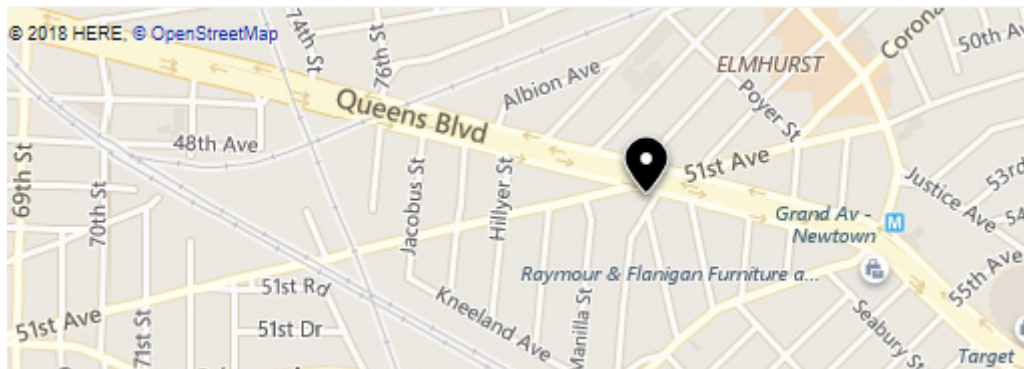
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