

modern AQUARIUM



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number 10

Greater City Aquarium Society - New York

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Series III Vol. XXVI, No. 10 December, 2019

ON THE COVER

Our cover photo this month features *Ilyodon whitei*, White's Basselet Goodeid. Speckles and iridescence are the hallmarks of this attractive twosome. Nice lighting enhances the appearance of this endangered little fish from Mexico. See Stephen Sica's article, "Trying to C.A.R.E.S.," on page 13.

Photo by Stephen Sica

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From the Editor

by Dan Radebaugh

As I've mentioned before in this column, there is an active article exchange program among tropical fish societies. For all, or nearly all, of the active societies, editors can and do run articles from one another's publications, so long as there are no unusual copyright restrictions. We ask to be informed of such use, and we in turn give credit to the donor pub.

It seems to me that this is a good way for all of us to get some content on subjects that our members may enjoy reading about, and it lets all of us know what's going on in other publications. For the past several years I've been running an exchange article in each issue of **Modern Aquarium**. When I learn that a particular article from **Modern Aquarium** has been used in another publication, I try to email our member/author to let him or her know. So this month, as I did in last December's issue, I'm letting all of our members know what **Modern Aquarium** articles are showing up in other clubs' publications.

However, this requires the caveat that I can't be sure that I know all of the publications that have run our articles, because I don't have a reliable way



of finding out. This exchange of publications is not easy to keep up with. For several years the NEC was acting as a sort of clearinghouse for club publications, but this seems to have stopped, so I'm not receiving as many publications as I was there for a while. Now I only receive club publications for those organizations with which I have direct exchange arrangements. Also, editors and exchange editors come and go, so things can fall between the cracks.

So with the above caveats, listed below are articles from **Modern Aquarium** that have appeared in other publications (that I know about) over the past several years. My thanks to our authors, as well as to the clubs that have let me know that they've used our articles in their journals.

Author	Title	Society	Publication	Issue
Berman, Steve	<i>Gymnogeophagus balzanii</i>	Victoria Cichlid Society	iCichlid	May-15
Birnbaum, Jules	Divide and Conquer!	Jersey Shore Aquarium Society	The Shoreline	Sep-15
Birnbaum, Jules	Breeding Rainbows	Bucks County Aquarium Society	The Buckette	Sep-18
Bollbach, Jeff	Rules Are Made To Be Broken	NEC	NEC Bulletin**	Apr-17
Chang, Tommy	MTS: Is There a Cure?	Bucks County Aquarium Society	The Buckette	Sep-15
Ferdenzi, Joseph	Endler's Livebearer	Bucks County Aquarium Society	The Buckette	Dec-13
Ferdenzi, Joseph	The Easy Way to Breed Killifish	Eastern Iowa Aquarium Association	Fin Flap	Apr-15
Ferdenzi, Joseph	The Easy Way to Breed Killifish	NEC	NEC Bulletin***	Aug-17
Ferdenzi, Joseph	My Perpetual Daphnia Tank	Bucks County Aquarium Society	The Buckette	Jul-19
Hinshaw, Steven	The Jar That Stands the Test of Time	NEC	NEC Bulletin*	Dec-16
Oshins, Elliot	To Be, Or Not to be...	Motor City Aquarium Society	Tropiquarium	May-18
Priest, Alexander A.	The Ultimate Nano Fish	Bucks County Aquarium Society	The Buckette	Feb-14
Priest, Alexander A.	The Most Ornate African	Bucks County Aquarium Society	The Buckette	Aug-16
Priest, Alexander A.	Breeding <i>Betta splendens</i>	Bucks County Aquarium Society	The Buckette	Mar-16
Priest, Alexander A.	The Fish of Many Morphs	NEC	NEC Bulletin**	Jun-16
Radebaugh, Dan	Going the Distance with <i>Paratheraps synspilus</i>	Bermuda Fry-Angle Society	Fish Tales	Apr-11
Radebaugh, Dan	<i>Paratilapia</i> sp 'fony'	American Cichlid Association	B.B. 269 #	Apr-12
Ramroop, Lauren	Angel and Betta	NEC	NEC Bulletin***	Aug-16
Sica, Stephen	In the Realm of the Moray Eel	Bucks County Aquarium Society	The Buckette	Oct-14
Sica, Stephen	I Still Like Duckweed!	Southwestern Michigan Aquarium Society	SWAM	Mar/Apr-17
Sica, Stephen	Easy Rider and the Foureye Butterfly Fish	NEC	NEC Bulletin+	Oct-17
Sica, Stephen	Duckweed: Still A Delight	NEC	NEC Bulletin†	Jun-19
Steeves, Greg	Do Some Writing!	Kitchener Waterloo Aquarium Society	Fins & Tales	Dec-18
Tustin, Derek P. S.	<i>Melanotaenia</i> of New Guinea	Bucks County Aquarium Society	The Buckette	Mar-19

*NEC Articles Competition Winner Entry Reprint 2014 Open Class – 1st Place Winner

**NEC Articles Competition Winner Entry Reprint 2014 Open Class – 2nd Place Winner

***NEC Articles Competition Winner Entry Reprint 2014 Breeding – 3rd Place Winner

†NEC Articles Competition Winner Entry Reprint 2015 Open Class – 2nd Place Winner

**NEC Articles Competition Winner Entry Reprint 2015 Open Class - 3rd Place Winner

***NEC Articles Competition Winner Entry Reprint 2015 Junior Class - 3rd Place Winner

†NEC Articles Competition Winner Entry Reprint 2017 Humor - 1st Place Winner

#Appeared first in *Buntbarsche Bulletin* Number 269, April 2012 -- Reprinted in *Modern Aquarium* in November, 2013





GCAS Programs

2020

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 4	TBA
April 1	TBA
May 6	Lawrence Kent TBA
June 3	Mike Tuccinardi TBA
July 1	TBA
August 5	A Night at the Auction
September 2	TBA
October 7	Larry Johnson TBA
November 4	TBA
December 2	Holiday Party!

Articles submitted for consideration in *Modern Aquarium* (ISSN 2150-0940) must be received no later than the 10th day of the month prior to the month of publication. Please email submissions to gcas@earthlink.net, or fax to (877) 299-0522. Copyright 2019 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 at (718) 458-8437, email gcas@earthlink.net, or fax at (877) 299-0522. For more information about our club or to see previous issues of *Modern Aquarium*, you can also go to our Internet Home Page at <http://www.greatercity.net>, <http://www.greatercity.org>, or <http://www.greatercity.com>.

President's Message

by Horst Gerber

I can barely believe that this is my last Prez message for 2019. Just around the corner is Feliz Navidad and Ho! Ho! Ho! Ho! Ho! Ho! is of course the abbreviated form of Horst! Horst! Horst! Get over this sciatica! I've been speaking about it with the Old Man in the sky, and it's getting better, but boy is he taking his sweet time about it!

I haven't been getting around much lately, but I hear that stores are having sales galore, and Christmas decorations are flying out the door! I'm very much looking forward to our Christmas Party so that I can catch up on "all the news that isn't fit to print." If Santa listens to my wishes I should be out hopping around on Christmas Day! Well, maybe not hopping, but at least be on my feet without crutches?

Otherwise I may have to learn how to give myself acupuncture. That works very well for about three days, but it's hard to reach around to your rear end to put the needles in the right place. I'd better leave that to my doctor.

While I haven't been around (for the last four meetings!) to badger you all, please remember my plea for some of you to step up and help the club. Believe me, if you want to help out, we can find a way for you to do it! Just speak to me or any of our Board members; Joe, Dan, Ed, Marsha—pretty much anyone whose name is on the masthead on the first page of this magazine. My experience is that you'll enjoy the club even more as you get to know how we do what we do to keep it running! With that in mind, please join me in welcoming Robert Kolsky as he steps in as our new Advertising Manager. Welcome, Robert!

Before closing this greeting, remember that as you look through this magazine you'll see advertisements from and listings of the companies both local and national that help us keep this a great club. Please help them in return, by shopping with them when you can! Along this same line, please notice display of business cards on pages 28 & 29. A note just below each card is a note telling you how much of a discount you will receive by showing them your Greater City ID card. This is good for our members, and good for these businesses!

See you next year!

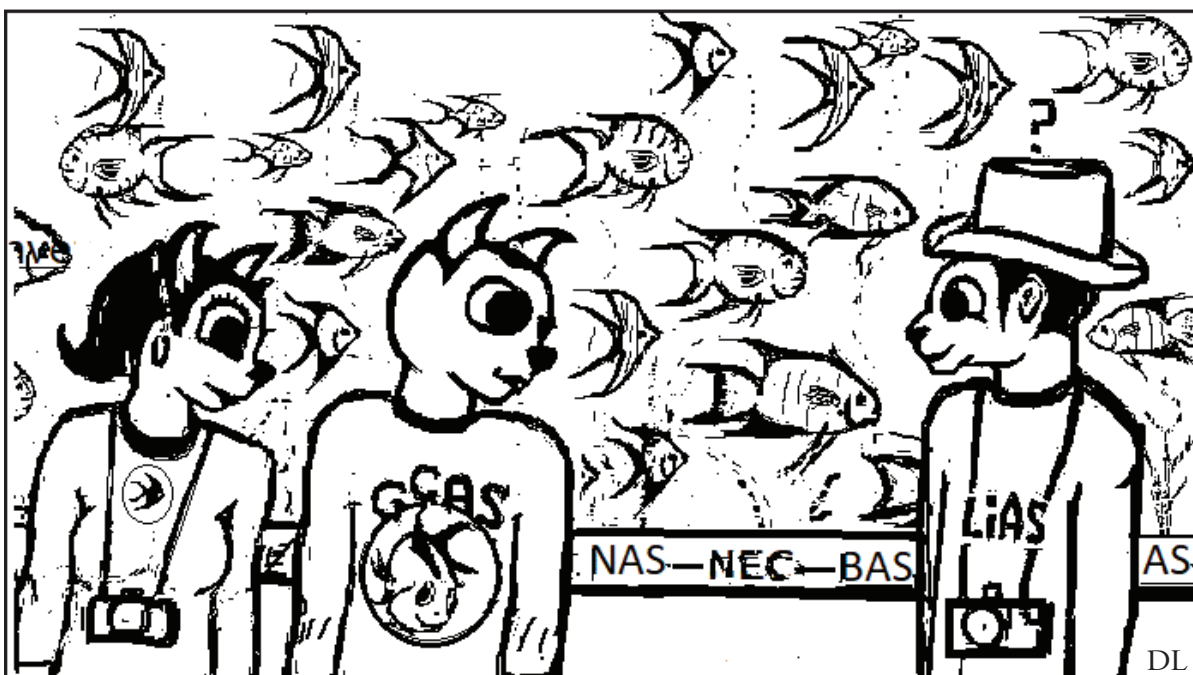
Horst

P.S. In the midst of my recent painful episode with sciatica, my wife Linda and I were very saddened to hear about the sudden passing of Larry Whitfield. Larry was a true hobbyist, and an exceptional person, always willing to lend a helping hand even if it meant going out of his way. A friend to many, he was an all-around good person, and a valued member of our club. We will miss him!



November's Caption Winner:

Bill Amely



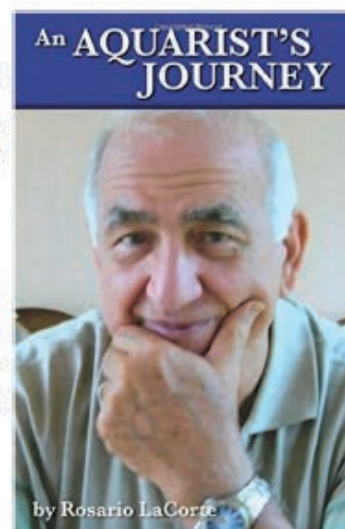
*Brooklyn! Queens! Long Island! They all feel like home, no matter where you hail from.
Happy Holidays!*

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](https://www.amazon.com)





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Back to Tanganyika!

Story and Photos by Warren Feuer

Long time members of Greater City may remember that for a while I kept and bred almost all of the known dwarf shell dwelling cichlids of Lake Tanganyika. Some may have even seen and heard one of my two presentations on these fish that held my attention for a while. Between 1997 and 2007 there were at least three or four species in my fishroom at any given time. As often happens with obsessions and overdoses though, I burned out. The last shell dweller I kept was *Lamprologus ornatipinnis*. After I finally managed to get them to breed (following much frustration), I realized that I needed to take a break from the shell dwellers. The enjoyment of keeping them had been replaced with the obsession of breeding them.

Fast forward to 2018. The population and contents of my fishroom has varied and shrunk in size, leaving me with quite a few empty tanks—some not even holding water. My breeding focus had gone from dwarf cichlids to dwarf plecos, and I was busily keeping and breeding members of the *Hypancistrus* genus. I can't say what it was that got me thinking about the "shellies" again, possibly an empty tank that I had inherited—basically a 15 gallon tank cut in half; 30 inches long, 12 inches wide and 6 inches high. I had kept different fish in it over the years, but in fact it is a perfect tank for the shell dwellers. I decided to keep one of that group in this tank, as it was sitting empty, in a prominent spot in my fishroom where its emptiness was painfully obvious. But which one? There were several candidates, not least of which was *Neolamprologus speciosus*, one of my favorites, sometimes called the "Black Ocellatus." In one breeding pair I had kept in the past, the lips of the male became neon orange when in brooding dress. Another candidate was *N. signatus*, with its copper-red dorsal fin. In the end, I decided to keep *Altolamprologus compressiceps* "dwarf Sumbu," a species I had kept before with great success and really liked. In fact, they and their cousins *A. calvus*, are easily two of my favorite cichlids period, regardless of location.

Unfortunately, finding these fish is not that easy. They are rarely if ever in stores, and if they are the cost is very high. Bear in mind, my formula for breeding success is to obtain five or more juveniles and allow the fish to form their own pairs. I have kept "breeding

pairs" of fish in the past, and rarely experienced success. To make a long story short, I found out that some "Sumbu dwarf" fry were going to be available at an upcoming Norwalk Aquarium Society auction.

I was not able to attend the auction, but Joe Ferdenzi, who was attending, offered to bid for me. With instructions to bid up to \$60 for the five fry, Joe was able to secure them for me with a winning bid at the bargain price of \$32. A deal if ever there was one!

Once secured in my house, I acclimated my new trophies slowly, to make sure the transfer would be a

success. They were very tiny when I got them, which was in February, 2019. It's now October of 2019, and I am happy to report that all are alive, well and growing. At first they were very shy, so shy in fact that I had to look really hard to find them, and they never seemed to eat. The only way I knew that they were eating was that they were alive. In the past month or so, however, they have all become bolder, and are out and about in the tank, and jumping on the food I put into the tank. They are not picky eaters, and at this point I am feeding them live and frozen baby brine shrimp, frozen daphnia and crushed flake food. I started them on powdered fry food and Tetra TabiMins. By the way, I find TabiMins to be a great fry food, as it dissolves in the tank and allows the fry to pick at their leisure. Of course, adult fish will likely out-compete the fry for the TabiMins, but in fry raising tanks, it's optimal.

As often as I can, I go on "mini getaways" to fish conventions that are close to my home. You can find



Here's a photo of the new tank.



A closer look at some of the new tank's inhabitants

me at the NEC Convention every year. This past year, the American Cichlid Association had its convention in Cromwell, Connecticut, hosted by the New England Cichlid Association. Any time the ACA Convention is within three hours of my home I do my best to attend, and I am never disappointed. Not only are the conventions attended by many of the people I have met and become friendly with over the years, but there are great fish to see, and there are always vendors with their interesting wares on display. This past year was no exception. Many of the manufacturers that attended brought samples of their products, and there is usually an opportunity to purchase goods at a discount. Hey, who doesn't love saving money?

There are often donations of fabulous complete tank setups that are raffled off. This year there were tank setups all the way up to 180 gallons. Besides the fact that I have nowhere to put a tank that size, there's the logistical issue of getting your prize tank of that size home! So, I passed on all of those. However, next to one of the vendor stands was a frameless tank



The dwarf Sumbu tank

that looked to be about 15 gallons in size, stocked with three varieties of Tanganyikan cichlids: *N. brevis*, *N. caudopuntatus* and *Chalinochromis bifrenatus*. My Tanganyika rust is showing; I thought they were from the *Julidochromis* genus. Thanks to Joe for identifying them! Unlike the other set-ups, the bidding for this tank was via a "silent" or "Chinese" auction, where each bidder entered their offer beneath the previous one on a sheet in front of the tank. The highest bid was \$125, for the tank, fish, dragon stones, shells, sand, power filter and a high end LED light. I couldn't resist, so I put in a bid for \$150, deciding I would go as high as \$200, although truth be told I knew the light was worth \$200 just by itself.

Unbelievably, there were no higher bids, and I soon found myself draining the tank (thanks, Ed Vukich and Artie Platt, for all your help with this), bagging the fish and plants and putting the tank in the back of my SUV. I never had an easier time catching fish, as they all fled into shells. Everyone who knows me will tell you that I am the worst at catching fish, so this was a good sign as well.

Once home, I had a perfect place for the tank in my fishroom, and directly replaced an algae overgrown, empty tank with this one. Coincidentally enough, it was right next to the tank that houses the *A. compressiceps* "dwarf Sumbu," my only other Tanganyikan fish. Once I had the tank filled with conditioned, pH adjusted water, I began the process

of acclimating the fish. One thing about most African cichlids; they are very hardy and adaptable. I placed the shells holding the fish in a five gallon bucket, and slowly, over the course of two hours (no, I'm lying here, it was really closer to *one* hour, but two hours sounds more text-book and appropriate!) brought the bucket's water into harmony with the tank's. I placed the shells into the tank and let them slowly sink to the tank's bottom.

Not one of the fish ventured out, but I could see them moving about in the shells, so I was not too concerned. As I wrote above, these are typical African cichlids, hardy and adaptable. Several hours later, as I was feeding my fish, I figured I would put some flake food into my new tank to see if any of its inhabitants were hungry. Hungry you say? All seven of the fish came out and began eating almost immediately!

It has now been almost three months since I came home from the ACA Convention with the tank and its contents. The fish have settled in, and act just as you would expect cichlids to act; territory challenges, some chasing of each other, but for the most part very tolerant.

I know you are wondering what sort of "bargain" I got for bidding \$150 on the whole shebang, so I will let you know what my research into the cost of each item revealed. The tank, a 17 gallon "Waterbox" rimless and frameless "Clear Mini" 16 gallon tank, retails for approximately \$120. The light, a Current Satellite Pro Plus is available for around \$150. So that's \$270 so far. Throw in the filter, an Aquarium Master Model 30 power filter retails that for about \$20.00. As far as the fish go, that's a cost I can't really calculate, but based upon my experience, I think a "guesstimate" of \$20 per fish is not too far off. So add another \$140. And finally, there's the white silica sand, *Anubias* plant and dragon stone. Maybe another \$20. Got the idea? My \$150 bid was a safe bet! Interestingly enough, as I was draining the tank, another attendee at the convention came up to me and told me he had bid \$125 and had wanted to bid more, but did not. There's a lesson there, too. Sometimes you have to take a leap of faith and throw a bit more in the pot! At any rate, when all is said and done, and as I end my story, I want to report that I now have two tanks of Tanganyikan cichlids, and my plan to start keeping "shellies" again has come to fruition. Now I just have to keep myself from becoming obsessed with them again!



Side by side in the fish room with the dwarf Sumbu tank.



Be Prepared!

by "The Undergravel Reporter"

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

This is the time of year for surprises. Holiday presents are both a joy and a source of stress (what to give and to whom, etc.) The fish keeping hobby has its own surprises. I had a few surprises of my own this past week when I discovered fry in two tanks that I had not noticed before. One of my prized fish surprised me by turning up inexplicably dead. Surprises can be both good and bad.

The way to cope with surprises in the fish keeping hobby is simply to be prepared. Preparation does not always solve problems, but it can keep them from getting worse. Sometimes being prepared can change a problem into a fortunate opportunity (such as the "problem" of what to do with fish purchased at a GCAS auction when you can't put these species into any of your existing tanks).

It seems that certain kinds of surprises (usually unfortunate ones) always seem to occur late at night. What's more, they seem to happen most often on weekends or holidays, when stores are closed and fellow hobbyists are out of town.

If you keep a small tank half filled with water, you have the makings of a breeder tank, a hospital tank, an isolation tank for new acquisitions. Keep one or two hardy fish in that tank (such as a swordtail or a single male betta), and you have a biologically active tank ready to accept new acquisitions that might require their own tank.

Every aquatic hobbyist should make preparations for emergencies. The role of antibiotics and their ultimate effectiveness vs. their potential for environmental harm and for hastening the development of more virulent disease strains is still under debate. However, I suggest having on hand some methylene blue to treat fungus and to prevent fungus on eggs, as well as at least one broad spectrum antibiotic (for both gram negative and gram positive bacteria).

You should keep a water conditioner to

remove unwanted chemicals (such as chlorine) for nearly instant "aging" of water. Some water conditioners include a "coating" to replace or supplement the protective slime coat naturally found on fish. This natural protective coat is often lost or reduced when a fish is subjected to stress by injury or a change in environment.

All aquarists should have a supply of kosher salt (or non-iodized salt). For most freshwater fish, salt acts as a tonic and assists in disease and parasite control.

Even if you never had a problem with ammonia, you should have on hand at least one product which can absorb or "lock" out the harmful effects of this killing chemical. Ammonia is never found in a fish's natural habitat and no amount should ever be considered "acceptable" in the home aquarium. But, if you discover an ammonia problem, the sooner you act to remove it, the better. You should note, however, that many products intended to protect fish from ammonia do not actually remove the ammonia from the water. The ammonia is only rendered less harmful. Check the package of these products and most of them will tell you that your standard ammonia tests are not accurate after using the product. Make sure you also have a supply of the specific ammonia test recommended by the ammonia treatment product.

You should have a spare filter and air pump or two. For filters that use impellers, "O Rings," and gaskets, you should have spares of these items. Since gaskets and O Rings are usually rubber, they may deteriorate after time. Periodic routine replacement of these items using your "spares" will keep problems to a minimum. (Remember to buy a new "spare" part to replace any that you use.) Spare filter bags, filter floss, sponges, and other filter media (activated carbon, sponges, etc.) should also be stockpiled, as opposed to being purchased when needed. Wait until you need a new filter cartridge, and chances are that the kind you need will be sold out.

I also keep on hand the following: spare nets of various sizes, a tube of aquarium sealer, several clean and empty plastic buckets, several spare heaters, a magnifying glass or two, tweezers, plastic bags suitable for transporting fish, some food suitable for fry (both egg layers and live bearer food), various types of suction cup clips, test kits (for at least ammonia, pH, nitrites and nitrates), spare aquarium bulbs (and, for fluorescent fixtures that use starters, spare starters of the correct sizes), some spare adult fish food (including a "feeder block" or two, or an automatic feeder), various lengths and thicknesses of air hose, various sizes of tank dividers, spare air stones, and a spare syphon.

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Buying these things in advance also lets me take advantage of sales and bulk purchase discounts.

One thing you most certainly should have in advance is a breeding net. A breeding net can be used for several purposes. It can protect a pregnant female from other fish, it can protect young fry from being eaten by older or larger fish (and enable them to be able to compete more successfully for food). It can be used to isolate a fish that has been the object of aggression. It can be used to hold eggs in an aquarium to prevent the eggs from being eaten, while still providing the benefits of aeration and current available in the tank.

Prepare yourself, also. Acquire a library of books on the hobby. Include in that library a few books about fish you are not currently interested in keeping. Prepare yourself for new aquaristic endeavors. When I started in the hobby, I preferred live bearers, hated cichlids, and I wouldn't even consider saltwater. During the years that followed, I had several salt water tank setups, had several tanks of cichlids (and, as a matter of fact, I'm working to set up another cichlid tank at the present time), and I now have more egg layers than I have live bearers. The main reason for the many changes I have undergone as a hobbyist was because my constantly expanding library included fish in which I was not currently interested.

Membership in an aquarium society, such as Greater City, is another way to prepare yourself. Aquarium society members are exposed to different ideas and ways of coping as they trade "war stories" with other members. The way one member handled (or failed to handle) a problem can assist you in deciding on a course of action when you have a similar problem. The lectures, speeches and demonstrations at meetings, as well as published articles in the journal, newsletter or magazine of an aquarium society, allow you to share in the collective experience of many different hobbyists, and to learn from their experiences and mistakes.

Aquarium society membership also gives you access to people who can answer your questions. Many societies publish for internal use a list of members, their interests, and contact phone numbers. I recently had a catfish question involving compatibility with fish in certain of my tanks. Then I called our Modern Aquarium Editor (and author of two extensive catfish articles this year), Warren Feuer. Warren graciously gave me a clear, complete, and helpful answer to which catfish I should be looking for to suit my particular needs, and he even suggested sources I should check to find

specimens for sale. While I might have been able to pull from my library much of the information I needed in this instance, the help I received as a GCAS member from another GCAS member fully prepared me for my purchase.

Another way to be prepared is to give advance thought to disaster plans. What if there were a massive power failure, lasting more than three days? Which of your tanks would be most adversely affected? Which of your fish would you want to make a special effort to protect? How would you go about doing it? What if this happened in the winter? What if this blackout happened during the hottest days of summer? Have you at least given thought to what you would do if your largest tank developed a crack, or broke?

Are all of the electric connections to your tanks protected with a ground fault interrupter (GFI)? Do all electric wires leading from all of your tanks have a U-shaped "bend" lower than the level of electric outlet they are plugged into, to allow water to drip from the bend and not enter the outlet? If not, you have not made adequate electric safety preparations. Speaking of safety preparations, are your tanks pet and child proof? (This is, of course, mostly for those with children and/or pets or who have children and/or pets paying occasional visits.)

What about your fish themselves? Are they prepared? Well nourished fish living in uncrowded environments that closely resemble their natural habitat will be less prone to stress related disorders. Are you aware of any unique nutrition requirements of any of your fish, or do all your tanks get "generic flakes?"

The best gift you could give yourself and your fish this Holiday season is to prepare some disaster plans and stow away some disaster equipment. You may never need to implement any of your disaster plans. Even so, the thought you gave in their preparation and the equipment you acquire to implement those plans will eventually prove of benefit to you and your fish.

Whether you were a Girl/Boy Scout or not, hoping for the best but preparing for the worst is a realistic plan, not only for the aquarium hobby, but also for life itself.

On that note, I wish everyone a happy Holiday and extend my best wishes for health and prosperity in the new year to my fellow hobbyists and their aquatic charges. This column was intended to remind everyone that, as aquarists, our fish, not our egos, need to be fed and nurtured. If I have offended anyone, it was unintentional, and I apologize.



EXTRAORDINARY EXAMPLES OF INTELLIGENCE AND PLAY BEHAVIOR IN CICHLIDS

By Robert Price

I have been keeping a 10-inch long gold monkey flowerhorn for the past year. He has obviously watched me take apart and clean the Aquaclear 70 filter in his tank. Now he has taken to trying to do it himself. Since last December, when he did it the first time, he has learned how to take off each telescoping tube of the intake, grab the charcoal and bio-chip bag, and throw it out of the tank or drop it to the bottom of the tank.



Gold Monkey Flowerhorn

He first did this when I was visiting my family over the Christmas Holidays. I came home to find all the fuses out and quite a bit of water in front of his tank. He seems to only do this late at night, and not for any apparent reason. I believe he may just be doing it when he is bored. I wish George Barlow were still alive and teaching biology at the University of California at Berkeley to convey the behavior of this fish as I share it with you.

The next part of the story is even more extraordinary. In my bedroom I have a 29 gallon

tank with a single Midas cichlid named Dogface, as he conforms perfectly to the species standard with a large hump and protruding snout. I've had him since he was a pup, and like most Midas cichlids he became an indefatigable digger when he hit five inches. Now at eight inches he has recently demonstrated a panoply of play behaviors without reward, which I believe surpasses the complexity of anything documented for a bony fish.

When I wake up in the morning I have to walk past his tank to get to the bathroom. He is

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almost always awake before me, and as I pass his tank, he always comes to the upper right corner and dances for 1 to 2 minutes. He shakes his head back and forth vigorously, and paddles his fins in place. Other tame fish do that. However, following that, he routinely cleans the gravel out of his nest or bed. It's made of seven flat rocks, some as big as he is, and he meticulously places them to form a bed, not a hiding area, in the middle of the tank.

On the 18th of March, the flowerhorn took the filter apart

again. This time I only put back the two extension tubes, and put the other in Dogface's tank. His reaction was immediate, and continued on and off for about 65 minutes.

He grabbed the blunt end in his mouth and swam as fast as he could across the tank with the pointy end of the filter intake positioned like a sword. He crashed it into the side of the tank, bit it repeatedly, and then dragged it down to the bottom of the tank (it had air stuck in it), then let it go and watched it bob up to the surface. He did this over and over about a dozen times. He does get to watch some television from his tank, but certainly these were his ideas and clearly he enjoyed doing it.

Today, March 29th, he added some new twists. He grabbed the tube again and swung it

like a baseball bat at the filter and the airstone. He succeeded in using it to topple the airstone (which I believe he hates) out of the tank. This qualifies as tool use! Although I believe it was accidental that he succeeded, certainly it appeared intentional. He can easily move the suckers from



Midas Cichlid (*Amphilophus citrinellus*)

his heater, and he made a space behind it just below the water line and inserted the filter piece in there. Never has he done this, like a goldfish going through a hoop, to get a reward. His only reward is the obvious enjoyment he gets from playing

with it. I just checked on him at 7:30 PM, and he was cleaning sand out of his bed, as is usual in the evening. This ritual behavior, contrasted with the spontaneous play, defies my explanation, and I would put his actions on You Tube if I only knew how to work my camcorder. Maybe he does. He plays a good game of baseball for a fish.

By the way, he does none of these things for rewards. He is not a gluttonous eater, and chews each Hikari pellet or jumbo cichlid stick individually.

He lets me know when he is hungry by coming over to the near top corner without the morning dance. Midas cichlids are one of the direct ancestors of flowerhorns, and I have seen both do complicated feats just to gratify themselves. Will wonders never cease?



Trying To C.A.R.E.S.

Story and Photos by Stephen Sica



Ilyodon whitei, commonly known as White's basselet goodeid. An attractive fish for every hobbyist.

On a shelf in my garage sat two, used, twenty gallon long tanks for several years. Good fortune struck earlier this year when a friend and neighbor was seeking a larger home for three red-ear slider turtles that she has owned for about twelve years. One turtle was becoming aggressive with another, so she decided to house each in his own terrarium. All three are males, and each turtle had grown to six to eight inches in length. I offered one of my tanks, and she readily accepted. She was happy and so was I, because I was able to help a friend and clear up some space. Never a minimalist, I'm always thinking about ways to downsize. It's a difficult endeavor because when I am able to discard something, I usually replace it with something else. Or I accumulate an item and then try to discard something else. I'm sure you and many others do likewise.

Many years ago at a GCAS meeting auction, a bag of bland-looking freshwater fish in the Goodeidae family came up for auction. They were described as an endangered species. What I recall vividly is that no one wanted them, so I purchased them for about five dollars. I had no special tank for them, so I put them in with my tetras, because it was impossible that they could mate! When I put them in my tank and observed them swimming to and fro, I realized that they were even blander than I had imagined—at least to me (I

do not wish to offend anyone). I tend to like every fish that I meet, so I have no desire to hurt any fish's feelings. From what I recall, the fish reminded me of either silver or colorless platies. They seemed to live happily for a year or two—maybe more—and slowly disappeared. This was the sum total of my experience with an endangered fish. I do understand that I did absolutely nothing to help sustain the species.

As a child, two of my favorite fish were guppies and swordtails. Livebearers are fascinating to a child. The only swordtails that I remember from my youth were green swordtails. There probably was no strain genetics or interbreeding during the 1950s. Swordtails with their sleek bodies and prominent male tail appendage were probably my favorites. As an adult I dreamed of having a tank dedicated to green swordtails. After reading the recent swordtail articles by Tom Warns and Joe Ferdenzi, and a brief Greater City presentation by Joe, I knew that someday soon I would like to have a tank full of green swordtails. So my second twenty gallon tank seemed destined to be the home of swordtails.

At the July 2019 Greater City Aquarium Society auction, Dan Radebaugh donated a bag of *Ilyodon whitei*, also known as White's basselet goodeid. Nobody seemed to want the fish, both adults and juveniles, so I purchased them for eight dollars. When



Being a new and inexperienced keeper of *Ilyodon whitei*, or White's basslet goodeid, I photographed two fish that often swim together. I'm unsure, but I'm going to assume that the sleeker fish on the left is a male while the slightly "plumper" fish on the right is/might be a female. If I'm wrong then it's two males!

I got them home, one juvenile had prematurely joined its ancestors. I put the rest in a tank with tetras, rasboras and catfish.

This time, my intention is to monitor and study the fish. If they procreate I don't think the other fish will eat any offspring. I cannot vouch for the parents because I know nothing about these fish.

While I am no expert, I do recall that the C.A.R.E.S. (conservation, awareness, recognition & responsibility, encouragement & education, and support & sharing) fish preservation program was established in 2004 by Claudia Dickinson. Claudia was an active member of GCAS until a few years ago. I understand that she is still active behind the scenes, and I assume that she now devotes her time to fish preservation. She is presently the Conservation Priority List Coordinator of C.A.R.E.S. She resides in Connecticut these days. You can research their website at caresforfish.org.



This whitei's profile shows its speckled flank. When you first find this fish on the GCAS auction table its subtle color and pattern are not always obvious.

While the list of endangered freshwater fish is quite extensive, there are many levels of endangerment. This is a concept that I had never even thought about, so I decided to research *Ilyodon whitei* online. Where else can you find so much information—and misinformation too! Let's assume that basic fish research on the internet is not a political hotbed. The C.A.R.E.S. website contains tables indicating the five

classes of endangerment. The International Union for the Conservation of Nature also has five classifications. Each organization may classify different fishes. If a fish is on both lists, C.A.R.E.S. defers to the IUCN "Red List" of threatened species.

The website tropicalfishfinder.co.uk states that "no fewer than six of the forty known species are either extinct or survive only in captivity, and a dozen more of them are endangered."



Two *Ilyodon whitei* and two neon tetras, *Paracheirodon innesi*, peacefully coexisting in their small, artificial habitat with an array of community fish.

I researched *Ilyodon whitei* on the ICUN Red List of Threatened Species 2019. This fish is also commonly known as the Balsas Splitfin. In 1996 this fish was evaluated as Critically Endangered (CR). Currently, its ranking on the Red List is Least Concern (LC) as of April 18, 2018. The fish is native to Mexico. It is still found in twenty-five locations, but the population is decreasing. The fish does not migrate, and its "generation" (I assume this means its lifespan) is two years. It is native to inland wetlands. Its population decline is the result of predation and competition from non-native fish species. The IUCN website shows a map of its habitat. There is other information and references to websites for further information. I suggest that you try these sites yourself for additional or more specific information.

The family Goodeidae was first described by David Starr Jordan in 1880 and named in honor of George Brown Goode, Jordan's colleague and an



Curious goodeid approaches a food clip resting on the bottom. I use the clip for romaine lettuce for snails, but both the snails and fish will devour the lettuce in two days

American ichthyologist. Goode became the assistant to the secretary of the Smithsonian Institute where he began the fish research program of the U.S. Fish Commission and Smithsonian Institution in 1873. He authored many books and more than one hundred scientific papers and reports with his colleague, Tarleton Hoffman Bean.

Goode died from pneumonia in 1896 at the age of forty-five. His colleague Bean had left the Smithsonian the year before. These two events led to a standstill in research of North American fish at the Smithsonian, and a general decline in fish research in the United States.

Much of the information contained here was gleaned from the Goodeid Working Group (GWG) website at goodeidworkinggroup.com. This is an international non-profit organization. There are numerous species and sub-species of goodeids in North America. *Ilyodon whitei* has a Mexican name: *Mexclapique cola partida*. This specific family member was first described in 1904 by S.E. Meek. The fish inhabits the upper tributaries of the Rio Balsas River near Yautepec in Morelos. Meek named the fish for E.A. White, "of the city of Mexico, in recognition of many favours Meek received through his courtesy." The Balsas splitfin is found in many rivers and basins in Mexico. It seems that subspecies are becoming fairly common.

Isolated populations of this species may show different genetic characteristics. These lineages are called Evolutionary Significant Units or ESUs. *Ilyodon whitei* has five ESUs. The GWG website describes some of the genetic similarities and differences among the *whitei*'s ESUs. Two were once considered separate species but now are considered "different" by their ESUs. They conclude that the genetic differences in this fish is a "confusing situation, we have to confess." If you have an interest in this fish or goodeids in general, I suggest that you try the websites that I have mentioned in this article. I also think that you can find others of merit.

My personal knowledge on the care and breeding of this livebearer is nil. However, in the wild, small individuals feed on animal matter, while larger ones prefer plants in the wet season and animal matter in the dry season. Science feels that they are an opportunistic species. In my aquarium, *Ilyodon whitei* will eat just about anything. I try to feed my fish a variety of foods, and often vary some of it from day to day. I usually keep a high grade flake food as a staple since they

seem to enjoy it. I have seen food recommendations of sliced cucumber and lettuce. The water temperature for these freshwater subtropical fish is about 65 to 75 degrees Fahrenheit. Warmer temperatures don't seem to have a negative effect. In addition to Mexico, some sources claim that they are found in Central America.

Average length of an adult is about three inches; females are usually slightly larger. The males have an anal fin with a little slit running through it. Males may be aggressive to one another in a smaller tank. This fish is often found in fast running streams and rivers.

When breeding, fry can be one-half inch at birth. Once fry are born, the parents usually ignore them. A large tank will facilitate this behavior, but removing either parents or fry may increase their survival rate. Newborn fry are large enough to eat finely powdered flake food. They will also eat algae and

plant matter. Generally speaking, to breed and raise goodeids use methods that have been established through the years for livebearers, such as swordtails, platies and other similar fish.

While most of the information about goodeids that I have presented here is from internet research, I recall that Dan Radebaugh has donated several bags of *Ilyodon whitei* to subsequent GCAS auctions during the past few months. Therefore I venture to opine that he has some expertise with these fish. To conclude, you can either look it up, or perhaps ask Dan. I have and probably will.



Goodeids are very peaceful and can be kept as a community fish.



Here's a unique photo. While I attempted to photograph a goodeid's profile, two other *whitei*'s pointed their small faces straight at the camera. Say cheese please!



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!



Joe Gurrado



Gilberto Soriano



Ron Webb



Leah Weisel



Dan Radebaugh



Greater City Aquarium Society 2019 Awards

To be awarded December 4, 2019

GENE BAIOTTO AQUARIST OF THE YEAR AWARD

MARSHA RADEBAUGH

JOSEPH FERDENZI ROLL OF HONOR

AL GRUSELL

JASON KERNER

DON SANFORD BREEDER OF THE YEAR AWARD

JOSEPH GRAFFAGNINO

WALTER HUBEL BOWL SHOW CHAMPION

RICHARD WAIZMAN

AUTHOR AWARD PROGRAM (AAP) AWARDS

Greater City Authors who made contributions printed during 2019, or who received AAP points as a result of NEC publication awards announced in 2019, *and* who moved up to a new **AAP** level are:

Joseph Ferdenzi	Sr. Grand Master Laureate	Dan Radebaugh.....	Master Laureate
Joseph Gurrado.....	Master Laureate	Tom Warns.....	Correspondent
Andrew Jouan.....	Correspondent	Ron Webb.....	Writer

Stephen Sica is Author of the Year for 2019!

BREEDER AWARD PROGRAM (BAP) AWARDS

Greater City aquarists who received BAP points during 2019, *and* who moved up to a new **BAP** level are:

Jules Birnbaum.....Advanced Breeder

GCAS Past Award Winners

JOSEPH FERDENZI ROLL OF HONOR

Gene Baiocco	Charles Elzer	Ben Haus	Susan Priest	Mark Soberman
Joe Bugeia	Joe Ferdenzi	Emma Haus	Herman Rabenau	Dan Radebaugh
Mary Ann Bugeia	Warren Feuer	Jack Oliva	Marcia Repanes	Marsha Radebaugh
Dan Carson	Herb Fogal	Al Priest	Nick Repanes	
Claudia Dickinson	Paul Hahnel		Don Sanford	

DON SANFORD BREEDER OF THE YEAR

1981-83 Ginny & Charlie Eckstein	1992-93 Steve Sagona	2002-05 Anton Vukich
1983-85 Rich Sorensen	1993-94 Joe Ferdenzi	2006, 2018 Warren Feuer
1985-86 Yezid Guttierrez	1994-95 Steve Sagona	2007, '08, '09, '10 Jeffrey Bollbach
1986-87 Joe Ferdenzi	1995-96 Tom Miglio	2011, 2012 Joseph Graffagnino
1987-88 Patricia Piccione	1996-97 Mark Soberman	2013 Leslie Dick
1988-89 Joe Ferdenzi	1997-98 Jeff George	2014 Mark Soberman
1989-90 Francis Lee	1998-'00 Tom Miglio	2015 Artie Platt
1990-91 Eddie Szablewicz	2000-01 Mark Soberman	2016 Joseph Graffagnino
1991-92 Dominic Isla	2001-02 Alexander Priest	2017 Joe Ferdenzi

GENE BAIOTTO AQUARIST OF THE YEAR (Since 1990-91)

1990-91 Diane & Harold Gottlieb	2004-05 Claudia Dickinson
1991-92 Doug Curtin & Don Curtin	2006 Anton Vukich
1992-93 Mark Soberman	2007 Ed Vukich
1993-94 Warren Feuer	2008 Al Grusell
1994-95 Steve Sagona	2009 Dan Radebaugh
1995-96 Alexander & Susan Priest	2010 Pete D'Orio
1996-97 Joe Ferdenzi	2011 Jeffrey Bollbach
1997-98 Claudia Dickinson	2012 Jules Birnbaum
1998-99 Vincent & Rosie Sileo	2013 Dan Puleo
1999-00 Pete D'Orio	2014 Leonard Ramroop
2000-01 Bernard Harrigan	2015 Alexander & Susan Priest
2001-02 Joe Ferdenzi	2016 Elliot Oshins
2001-02 Jason Kerner	2017 Joseph Gurrado
2002-03 Carlotti De Jager	2018 Dan Radebaugh
2003-04 Jack Traub	

WALTER HUBEL BOWL SHOW CHAMPIONS (Since 1983-84)

1983-84, 84-85 Tom Lawless	1996-97, 97-98 Steve Sagona	2009 Mario Bengcion
1985-86, 86-87 Joe Ferdenzi	1998-99, 99-2000 Tom Miglio	2010 Alexander A. Priest
1987-88 (tie) Mark Soberman	2000-01 Pat Coushaine	2011, 2012 Richard Waizman
and Mary Ann & Joe Bugeia	2001-02 William Amely	2013 Jerry O'Farrell
1988-89 Jason Ryan	2002-03 Evelyn Eagan	2014 Ruben Lugo
1989-90 Eddie Szablewicz	2003-04 William Amely	2015, 2016 Richard Waizman
1991-92 thru 93-94 Steve Sagona	2004-05 Evelyn Eagan	2017, 2018 William Amely
1994-95 Carlotti De Jager	2006, 2007 Ed Vukich	
1995-96 Mary Eve Brill	2008 William Amely	

GCAS PRESIDENTS (Post 1945 — number in parenthesis = consecutive terms)

1946-49 Elliott Whiteway (4)	1968-70 Walter Hubel (2)	1981-84 Brian Kelly (3)
1950-51 Robert Greene (2)	1970-72 Dave Williams (2)	1984-86 Jack Oliva (2)
1952-53 Robert Maybeck (2)	1972-73 Dan Carson (1)	1986-97 Joe Ferdenzi (11)
1954-55 Leonard Meyer (2)	1973-75 Herb Fogal (2)	1997-99 Vincent Sileo (2)
1956-57 Sam Estro (2)	1975-76 Richard Hoey (1)	1999-00 Jeff George (1)
1958 Leonard Meyer (2+1)	1976-77 Ted Tura (1)	2000-08 Joe Ferdenzi (11+8)
1959-64 Gene Baiocco (6)	1977-78 Gene Baiocco (6+1)	2009-16 Dan Radebaugh (8)
1965 Andrew Fazio (1)	1978-79 Louis Kromm (1)	2017-19 Horst Gerber (3)
1966-68 Charles Elzer (2)	1979-81 Don Sanford (2)	

GCAS Author Award Program

We are always very pleased to welcome new names to our member/author list, and you will see a few new names once again this year, including (once again) some youthful contributors.

Quite a few of our authors have moved up the ladder this year in our Author Award points rankings. Congratulations to Joe Ferdenzi, Joe Gurrado, Andrew Jouan, Dan Radebaugh, Tom Warns, and Ron Webb for achieving new titles. As our authors move up the ladder in terms of recognition, the steps become taller, so it's good to see so many moving up this year in so many categories. Special congratulations are due to our **Author of the Year** for 2019, Steve Sica! **Modern Aquarium** is primarily the product of our members. We are grateful for every article and photo from every member, and we hope to hear more from each of you in 2020!

Overview of the Author Award Program

The GCAS AAP awards points for contributions to **Modern Aquarium**. Persons acquiring a specified number of points will receive additional recognition in the form of a certificate for having reached designated Accomplishment Levels. (See "Accomplishment Levels.")

Each person making a qualifying contribution to **Modern Aquarium** receives points, as well as chances for a **Prize Drawing** at the Annual Holiday Party.

Eligibility

Any member of Greater City who makes a contribution to **Modern Aquarium** is automatically a participant.

Points

Five points will be awarded for an original article of 500 words or less.

Ten points will be awarded for an original article of 501 words and over.

Five points will be awarded for an original photograph, drawing, or illustration submitted with, and as part of, an original article. If more than two photographs, drawings, or illustrations are submitted with a related article, only two will be given points (this is in addition to the points awarded the article, based on its size).

Ten points will be awarded for an original color photograph that is used on the front cover. Photographs must be the work of the member submitting them, and must not have been previously published, or submitted for publication, in any commercial or amateur publication.

Two or more related photographs or illustrations submitted with captions, and occupying one or more pages, will be counted as two photos (10 points) and as an article over 500 words (10 points), for a total of 20 points. An example would be a photo spread with captions.

An original article on a fish in the **C.A.R.E.S.** Preservation Program will receive **double points** (i.e., 10 points for an article of 500 words or less, and 20 points for an article of 501 words or more). Photos and drawings of a **C.A.R.E.S.** eligible species will also receive double points.

Five points will be awarded for an original puzzle which is used on the "Fin Fun" page of **Modern Aquarium**.

Ten points will be awarded to the winner of our Cartoon Caption Contest.

Points are awarded only once for an article, drawing, puzzle, or photograph. No points are awarded for subsequent reprints, regardless of whether the original article was awarded points previously in the AAP. To be eligible for AAP points, a contribution must first have been submitted to **Modern Aquarium**. However, if an article previously published in **Modern Aquarium** is significantly revised by its author (as a result of new information or developments), and if such a revision is first submitted to **Modern Aquarium**, it will be treated as a new article. Points are awarded in the year the article is printed. Editorials and President's Messages are excluded.

An article deemed unacceptable by the Editorial Staff of **Modern Aquarium** for reasons of appropriateness of topic, suitability, or possible violations of copyright or libel laws, will be ineligible for participation in the GCAS AAP. Decisions of the Staff are final.

Points credited to an author may not be carried over or credited to subsequent calendar years for the purposes of raffle prize chances or "Author Of The Year" designation.

Bonus Points

If, in the year following its publication in **Modern Aquarium**, an article is given a 1st, 2nd or 3rd place award by the North East Council of Aquarium Societies ("NEC") or by the Federation of American Aquarium Societies ("FAAS"), an additional 10 points will be awarded if the author is a GCAS member in the year the NEC or FAAS award is announced. This applies only to articles (not to drawings, columns, cartoons or photos). These bonus points are credited in the year that the award is announced, not the year for which it is awarded.

Prize Drawing

For every 5 AAP points earned in a calendar year, the recipient is given one chance in our “Authors/Contributors Only” raffle.

Author of the Year

The person with the most points in a calendar year receives a certificate as “**Author Of The Year**” for that year. This is our most prestigious award, and the winner truly exemplifies the high value which they place on the contribution of experience and knowledge to the aquarium hobby at large.

Accomplishment Levels

For the accomplishment levels specified below, points are cumulative over the life of the AAP program. ¹Points are **doubled** for each article on a fish in the C.A.R.E.S. Preservation Program.

²Points are **doubled** for each photo or drawing of a C.A.R.E.S. fish used on the cover.

Bonus points are awarded to participants for awards (other than Honorable Mention) received

from the Northeast Council of Aquarium Societies (NEC) Article Awards, in the year these awards are **announced**, not in the year for which they are awarded.

Modern Aquarium staff members are ineligible for the Raffle. Family members of staff ARE eligible.

Author	25 to 45 pts
Correspondent	50 to 95 pts
Writer	100 to 145 pts
Essayist	150 to 195 pts
Journalist	200 to 295 pts
Columnist	300 to 495 pts
Laureate	500 to 745 pts
Senior Laureate	750 to 995 pts
Master Laureate	1,000 to 1,495 pts
Grand Master Laureate	1,500 to 1,995 pts
Sr. Grand Master Laureate	2,000 to 10,000 pts
Editor Emeritus	over 10,000 pts

Continues on next page



2019 Totals	Art Work (in points)	Number of Articles ¹		Awards	Total Points	Prize
Author	Photo/ Drawing (up to two per article) ²	500 Words Or Less	Over 500 Words Or Caption Contest Winner	Bonus ³ Points	Current Year Total March to December	Raffle ⁴ Chances
Bill Amely		0	1		10	2
Jules Birnbaum	25	2	2		55	11
Carlotti de Jaeger			1		10	2
Wallace Deng	5				5	1
Joseph Ferdenzi	20	1	4	20	85	17
Warren Feuer	2	0	2		22	4
Joe Galarza	10				10	2
Peter Goldfien	5				5	1
Lonnie Goldman	10				10	2
Joe Gurrado	155	0	6		215	43
Andrew Jouan	15				15	3
Tom Keegan	10				10	2
Denver Lettman	5				5	1
Ruben Lugo	30				30	6
Jerry O'Farrell	10	0		10	20	4
Elliot Oshins	30	0	0		30	6
Alexander A. Priest	55	0	5		105	n/a
Susan Priest	25	0	4		65	n/a
Dan Radebaugh	75	3	1		100	n/a
Marsha Radebaugh	20	0	3		50	n/a
Lauren Ramroop	5			10	15	3
Stephen Sica	160	0	10	10	270	54
Gilberto Soriano	35				35	7
Undergravel Reporter	0	10	0	10	60	n/a
Tom Warns	0		1	10	20	4

Following are the total AAP points for all GCAS members as of December 2019. If you have questions, or feel that there are errors, please contact Dan Radebaugh.

Shunmugan Al	40	Victoria Bohme.	25
Tamer Altan	5	Jeffrey Bollbach	150
Bill Amely	175	Roger Brewster	10
Sharon Barnett	30	Tommy Chang	105
Fred Bellise	10	Donald Curtin.	10
Mario Bengcion	15	Doug Curtin	90
Steve Berman	25	Carlotti De Jager	40
Jules Birnbaum	1,195	Adrian Deng	10
Tom Bohme	15	Wallace Deng	125

Xavier Deng	50
Les Deutsch	5
Leslie Dick.	55
Brad Dickinson	20
Claudia Dickinson	3,195
Al DiSpigna	5
Pete O'Orio	5
Rod Du Casse	5
Rita Dunne	10
Evelyn Eagan	25
Frank Fallon	65
Harry Faustmann	50
Anita Ferdenzi	15
Francesca Ferdenzi	5
Joseph Ferdenzi	2,055
Marisa Ferdenzi	20
Alison Feuer	5
Warren Feuer	327
Michael Foran	25
Artie Friedman.	15
Peter Foster	10
Mike Gallo	10
Jeff George	165
Joe Galarza	10
Horst Gerber	150
Linda Gerber	10
Steve Giacobello	15
Peter Goldfien	5
Lonnie Goldman	10
Joseph Graffagnino	320
Steve Gruebel	10
Al Grusell	25
Joseph Gurrado	1,040
Bernard Harrigan	1,800
Steven Hinshaw	165
Andrew Jouan	55
Tom Keegan	10
Jason Kerner	140
Charlie Kuhne	10
Denver Lettman	175
Rich Levy	105
Bill Lockett	
Ruben Lugo	360
Beth Macht	10
John Malinowski	5
Desiree Martin	45

Tom Miglio	25
Jackleen Minassi-Haftvani	20
Temes Mo	5
Jerry O'Farrell	320
Elliot Oshins	1,035
Jim Peterson	5
Margaret Peterson	10
Artie Platt	20
Alexander A. Priest	4,350
Susan Priest	3,825
Dan Puleo	135
Dan Radebaugh	1,025
Marsha Radebaugh	390
Jannette Ramirez.	220
Lauren Ramroop	60
Leonard Ramroop	45
Mark Rubanow	5
Charley Sabatino	170
Donna Sosna Sica	10
Stephen Sica	2,740
Vincent Sileo	50
Danielle Soberman	5
Ilyssa Soberman	15
Robin Soberman	10
Mark Soberman	75
Gilberto Soriano	185
Jack Traub	20
Undergravel Reporter	1,760
Anton Vukich	5
Ed Vukich	105
Michael Vulis	50
Tom Warns	55
Ron Webb	135
Larry Whitfield	60
Greg Wuest	25



GCAS Breeder Award Program 2019

<u>Last Name</u>	<u>First Name</u>	<u>Date</u>	<u>SPECIES BRED</u>	<u>Points</u>	<u>1st - GCAS</u>	<u>CARES</u>	<u>Type</u>	<u>Origin</u>	<u>Common Name</u>	<u># Species</u>
Birnbaum	Jules	Pre-2017	Wapoga Red Laser Rainbow	5			Cyprinid		Wapoga Red Laser	
		00-Jan 2017	<i>Neolamprologus marunguensis</i> "Kapampa"	25	✓		Cichlid	Old World	same	
			<i>Aspidoras albater</i>	15			Catfish	New World	False macropterus	
		18-Jan	<i>Xiphophorus alvarezi</i>	5			Livebearer	New World	Chiapas swordtail	
		18-Jan	Ameca splendens "Rio Teuchitam"	20		♥	Goodeid	New World	Butterfly Splitfin	
		18-Jan	<i>Epiplatys annulatus</i>	15			Killifish	Old World	Clown Killie	
		18-Jan	<i>Inpaichthys kerri</i>	10			Characin		Blue Emperor Tetra	
		18-Jan	<i>Xenotoca lyonsi</i> (Eiseni) "Rio Tamazula"	20		♥	Goodeid	New World	Redtail Goodeid	
		19-Feb	<i>Fundulopanchax oeseri</i>	20	✓		Killifish	Old World		
		19-Feb	<i>Nannacara anomala</i>	15			Cichlid	New World	Golden Dwarf Cichlid	
		19-Apr	<i>Neolamprologus similis</i>	15			Cichlid	New World	Big Eye Multifasciatus	
		19-Apr	<i>Melanotaenia boesemani</i>	15		♥	Cyprinid		Boesemani rainbowfish	
		19-Apr	<i>Ancistrus</i> "Super Red Bristlenose"	15			Catfish	New World	Super Red Bristlenose	
			Total Points	195					Number of species:	13
Graffagnino	Joseph	17-Jun	<i>Epiplatys roloffi</i>	10			Killifish	Old World		
		18-Mar	<i>Gymnocorymbus ternetzi</i>	15			Characin		Black Skirt Tetra	
		18-Mar	<i>Pseudotropheus crabro</i>	20	✓		Cichlid	Old World	Bumblebee Mbuna	
		18-Mar	<i>Pundamilia macrocephala</i>	35	✓	♥	Catfish	Old World		
		18-Mar	<i>Tatia intermedia</i>	30	✓		Catfish	New World		
		18-Mar	<i>Xiphophorus mayae</i>	5			Swordtail	New World	Mayae Swordtail	
		18-Apr	<i>Archocentrus nanoluteus</i>	15			Cichlid	New World	Yellow Convict	
		18-Oct	<i>Corydoras</i> sp. CW010	25	✓		Catfish	New World	Gold Laser Cory	
		18-Oct	<i>Nannacara anomala</i>	15			Cichlid	New World	Golden Dwarf Cichlid	
		19-Mar	<i>Corydoras zygatus</i>	25	✓		Catfish	New World	Black Band Cory	
		19-Mar	<i>Xiphophorus kallmani</i>	15		♥	Swordtail	New World	Catemaco Swordtail	
		19-Mar	<i>Sarotherodon knaureae</i>	25	✓		Cichlid	Old World		
		19-Mar	<i>Ptyochromis</i>	30	✓	♥	Cichlid	Old World	Red Rock Sheller	
		19-Mar	<i>Teleogramma brichardi</i>	25	✓		Cichlid	Old World	Dragon Fish	
		19-Apr	<i>Archocentrus panamensis</i>	25	✓		Cichlid	New World		
		19-May	<i>Corydoras schultzei</i> black	15			Catfish	New World	Black Cory	
		19-May	<i>Tateurndina ocellicauda</i>	10			Eleotridae		Peacock gudgeon	
		19-May	<i>Hypsolebias mediopopillatus</i> "pindai"	25	✓		Killifish			
		19-Jun	<i>Astatotilapia latifasciata</i>	25		♥	Cichlid	Old World	Zebra Obliquidens	
		19-Jun	<i>Xenotoca lyonsi</i>	20		♥	Goodeid	New World	Rio Tamazula livebearer	
		19-Aug	<i>Pelmatochromis buettikoferi</i>	25	✓		Cichlid	Old World		
			Total Points	435					Number of species:	21
Soberman	Mark	6/22/2019	<i>Ilyodon furcidens</i>	20	✓		Goodeid	New World	Goldbreast splitfin	
		6/22/2019	<i>Geophagus pellegrini</i>	15			Cichlid	New World	Yellowhump Eartheater	
		1/9/2019	<i>Hypancistrus</i> sp. L-345	30	✓		Catfish	New World	L-345	
		1/9/2019	<i>Danakilia sukoray</i>	25	✓		Cichlid	Old World		
			Total Points	90					Number of species:	4
Goldfien	Peter	11/6/2019	<i>Nannacara anomala</i>	15			Cichlid	New World	Golden Dwarf Cichlid	
			Total Points	15					Number of species:	1



GCAS 2019 Breeder Awards Update

This update reflects the new Specialty Awards, and corrects a few errors that had crept in over the years.

<u>Name</u>	<u>Points</u>	<u>Level</u>	<u>Specialty Award</u>	<u>Species</u>
Birnbaum, Jules	195	Advanced Breeder		
Bollbach, Jeff	1,745	Advanced Grand Master Breeder	Senior Specialist	Anabantoids, Cyprinids, Livebearers, Marine, N.W. Cichlids
D'Orio, Pete	90	Breeder		
DeJager, Carlotti	440	Master Breeder		Anabantoid, N.W. Cichlids
Dick, Leslie	160	Advanced Breeder		
Dickinson, Claudia	435	Master Breeder		N.W. Cichlids, O.W. Cichlids
Ferdenzi, Joseph	1,215	Senior Grand Master Breeder	Senior Specialist	Catfish, Cyprinids, Killifish, Livebearers, N.W. Cichlids, O.W. Cichlids
Feuer, Warren	990	Senior Grand Master Breeder		Catfish, O.W. Cichlids
Gerber, Horst	55	Breeder		
Graffagnino, Joseph	2,085	Advanced Senior Grand Master Breeder	Expert Specialist	Anabantoids, Catfish, Characins, Cyprinids, Livebearers, N.W. Cichlids, O.W. Cichlids
Platt, Artie	210	Advanced Breeder		
Priest, Alexander A.	330	Master Breeder		Anabantoids
Radebaugh, Dan	75	Breeder		N.W. Cichlids, Goodeids
Ramroop, Leonard	80	Breeder		Livebearers
Soberman, Mark	1,150	Senior Grand Master Breeder	Senior Specialist	Catfish, Killifish, Livebearers, O.W. Cichlids
Vukich, Ed	835	Senior Grand Master Breeder		Livebearers, N.W. Cichlids, O.W. Cichlids





GCAS 2019

Breeder Award Totals

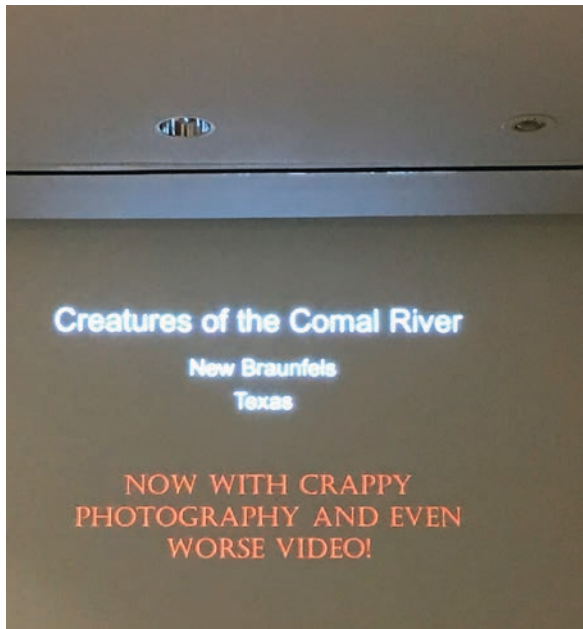
<u>NAME</u>	<u>POINTS</u>	<u># BRED</u>	<u>NAME</u>	<u>POINTS</u>	<u># BRED</u>
1 JOSEPH GRAFFAGNINO	2,085	133	39 LOUIS KROMM	170	16
2 JEFF BOLLBACH	1,745	125	40 JEFF GEORGE	165	17
3 JOSEPH FERDENZI	1,215	77	41 DICK MOORE	160	5
4 MARK SOBERMAN	1,150	60	42 LESLIE DICK	160	8
5 WARREN FEUER	990	64	43 JEAN BRAUDE	155	12
6 ANTON VUKICH	910	70	44 BARRY LYNCH	150	18
7 TOM MIGLIO	875	66	45 JOE CUCINIELLO	135	9
8 EDWARD VUKICH	835	64	46 JORGE RODRIGUEZ	135	9
9 STEVE SAGONA	655	47	47 THADDEUS TURA	135	9
10 JOHN STORA	540	47	48 SHARON MIRABELLA	135	10
11 JOSE ARANDA	505	47	49 JERRY SCHULTZ	120	11
12 JOHN IANNONE	485	44	50 KEN BRUST	120	14
13 THE ECKSTEINS	455	39	51 FRANK GANNON	120	16
14 CARLOTTI DE JAGER	440	33	52 JOE MANCUSI	115	8
15 CLAUDIA DICKINSON	435	27	53 GEORGE MAROTI	115	8
16 RICHARD SORENSEN	420	33	54 THE KELLYS	115	12
17 FRANCIS LEE	380	28	55 HARRY EVANS	110	10
18 CHARLEY SABATINO	360	20	56 HERB FOGAL	100	13
19 THE REPANES	355	27	57 DENNIS EGIELSKI	95	4
20 JACK OLIVA	355	42	58 JERRY MAYER	95	7
21 GERALD GORYCKI	350	41	59 JOE FLANAGAN	95	12
22 HAROLD KETTERER	335	30	60 BRIAN KELLY	90	6
23 AL PRIEST	330	8	61 PETE D'ORIO	90	9
24 THE LOMBARDIS	325	32	62 ROBERT MC KEAND	85	5
25 DON SANFORD	310	25	63 NOEL RODRIGUEZ	85	7
26 GREGORY WUEST	310	30	64 EDWARD SZABLEWICZ	85	7
27 TED KURDZIEL	295	24	65 BOB KUHLE	80	6
28 TONY FERRARO	275	23	66 BRADLEY PLOTKIN	80	6
29 THE BUGEIAS	270	31	67 LEONARD RAMROOP	80	11
30 STEPHAN ZANDER	230	14	68 JOHN LEE	75	5
31 DOMINIC ISLA	225	20	69 JOSE PEREZ	75	6
32 ARTIE PLATT	210	16	70 DAN RADEBAUGH	75	6
33 YEZID GUTIERREZ	206	20	71 BRUCE WEILER	75	6
34 PHILIP INGENITO	205	13	72 TOM BOHME	75	7
35 JULES BIRNBAUM	195	13	73 DOUGLAS CURTIN	75	12
36 ROD DU CASSE	190	14	74 PAT PICCIONE	70	7
37 THE DONATONES	175	18	75 BOB RADAMACHER	70	9
38 JOHN MORAN	170	11	76 DONALD CURTIN	70	10

<u>NAME</u>	<u>POINTS</u>	<u># BRED</u>	<u>NAME</u>	<u>POINTS</u>	<u># BRED</u>
77 SARA MONHEIT	65	6	107 DANNY SHEPARD	20	3
78 JOEL FORGIONE	60	4	108 IGNACIO ARENCIBIA	15	1
79 CHARLES KUHNE	60	8	109 THE FERNANDEZ	15	1
80 HORST GERBER	55	4	110 PETER GOLDFEIN	15	1
81 BOB DU BOIS	55	5	111 WILLIAM SADERA	15	1
82 BOB WRANOVICS	50	4	112 JOE ARONNE	15	2
83 MIKE CASSANO	50	5	113 DAN GAWIAK	15	2
84 WILLIAM BRANDOFINO	45	4	114 RICH LEVY	15	2
85 WARREN BURKE	45	7	115 BILL ARONNE	10	1
86 CHARLES SHATAKA	40	5	116 KATHY BUSBY	10	1
87 BARRY CENTER	35	3	117 FRANK FALLON	10	1
88 ARTHUR MAYER	35	3	118 JASON KERNER	10	1
89 VINNIE RITCHIE	35	3	119 JERROLD MEYER	10	1
90 BRIAN STERN	35	4	120 HORST MIEHLBRAD	10	1
91 THE MARTINS	35	5	121 DIANNE SPELLMAN	10	1
92 AL PHANEUF	35	5	122 ABE COOPER	10	2
93 CHARLES BENEFATTI	35	6	123 JOHN MC CAFFERY	10	2
94 ROB ALTONEN	30	2	124 WALTER ROSTOWSKI	10	2
95 ROGER BEAULIEU	30	2	125 JAMES BROOKS	5	1
96 THE STEGMANS	30	3	126 DANNY CIRNIGLIAR	5	1
97 GENE BAIOTTO	30	4	127 GEROLD COCH	5	1
98 MICHAEL VILLANO	30	4	128 KATHY FERNANDEZ	5	1
99 VINCENT BABINO	25	2	129 ADAM KLEINROCK	5	1
100 STANLEY WEGLARZ	25	4	130 JAY LIEBOWITZ	5	1
101 STEVEN MILLER	20	1	131 EDYTH MONSOUR	5	1
102 PETER SCHLEISMAN	20	2	132 THE QUINNS	5	1
103 ARNOLD FREED	20	3	133 BILL SMITH	5	1
104 EMMA JORDAN HAUS	20	3	134 WILLIAM STALZER	5	1
105 GUNTER HORSTMANN	20	3	135 RICHARD WALSH	5	1
106 STUART KRICHEVSKY	20	3			



Pictures From Our Last Meeting

Photos by Joseph Gurrado



Keep expectations low, then dazzle 'em! Thanks, Greg!



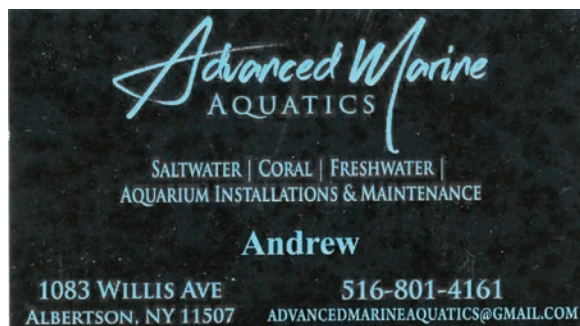
Artie Platt presents Rich Waizman with the blue AND red ribbons from our bowl show.



Our speaker Greg Steeves presents Joe Ferdenzi and Al Priest with a plaque from the CARES organization (see their website at www.caresforfish.org) honoring Greater City's role in creating the CARES program. A readable sized version of this plaque appears on the inside back cover of this issue of *Modern Aquarium*.



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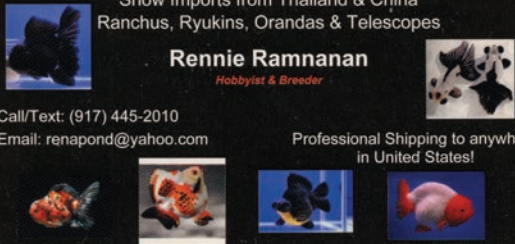
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GCAS Classifieds

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

FOR SALE: Coralife 9-Watt Turbo-Swift U/V, bulb recently replaced.
 Call Kris: 516-282-6677



GCAS Happenings

December

Last Month's Bowl Show Winners:

- 1 RICHARD WAIZMAN BLUE & RED DELTA BETTA
- 2 RICHARD WAIZMAN BLUE & GREEN DELTA BETTA

OFFICIAL 2019 BOWL SHOW TOTALS:

RICHARD WAIZMAN	44	WILLIAM AMELY	12	CHRISTOPHER KOENIG	5
JOHN BUZZETTI	5	TOM KEEGAN	3		

A WARM WELCOME BACK TO RENEWING GCAS MEMBERS JOE FRANKE, LOIS VELAZQUEZ, AND RICHARD WONG!

A SPECIAL WELCOME TO NEW GCAS MEMBERS MICHAEL KOSTAKOS AND JOSHUA MODESTE!

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



GREATER CITY AQUARIUM SOCIETY

Next Meeting: Wednesday, March 4, 2020

Speaker: TBA

Topic: TBA

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.net>

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: January 10, 2020

Speaker: Luis Morales

Topic: Fish Photography

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: December, 2019

Event: Holiday Party

Topic: N/A

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 at Alley Pond

Environmental Ctr.: 228-06 Northern Blvd.

Contact: Gene Baudier (631) 345-6399



NASSAU COUNTY AQUARIUM SOCIETY

Next Meeting: December 10, 2019

Event: Holiday Party

Topic: N/A

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 Hagan

Center for Nursing building, in the lower level, classroom

#H006. See website for directions.

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

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



NORTH JERSEY AQUARIUM SOCIETY

Next Meeting: December, 2019

Event: Holiday Party

Topic: N/A

Meets: 12:30 PM - 3rd Saturday of the month, 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: January 16, 2020

Speaker: TBA

Topic: TBA

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/>

Females & Foraging

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 Journal of Animal Ecology, a publication of the British Ecological Society, recently published a study led by scientists of the Leibniz-Institute of Freshwater Ecology and Inland Fisheries (IGB) and the Leibniz Institute for Zoo and Wildlife Research (IZW) together with other research institutions providing evidence that, in the wild, male guppies in the presence of females more often ended up at novel food patches. In contrast, female food discovery was independent of male presence.

Trinidad guppies (*Poecilia reticulata*) prefer food resources like fruits and insects falling into the water—so it is usually uncertain when and where they encounter food. In this study, behavioral ecologist Lysanne Snijders and her team set up a field experiment and manipulated guppy sex compositions (all male, all female, or mixed) in the wild using individually color-marked guppies. They conducted social observations, followed by foraging trials.

Males reached more food patches when there were females around. Yet females

reached a similar number of patches either with or without males present. Males also spent less time socially in absence of females, but the absence of males had no effects for females. The researchers concluded that more social guppies ended up at more food patches.

"Life in the group can be advantageous. You have to share the food with your peers, but it is also easier to find it if you use the information of others," explains Lysanne Snijders. Guppies react to the typical behavior of successful food finders, which is, swim faster, grab food, and eat.

The researchers can only guess why males behave differently in the absence of females than in sexually mixed groups. "In this case, males among themselves are more likely to be in a state of competition than cooperation and therefore spend less time together and miss out on important information," says Lysanne Snijders.

The head of the study, IGB-researcher

Professor Jens Krause, is investigating the dynamics of swarm behavior and collective intelligence in animals. He explains the importance of this field of research: "If we are able to understand the



Trinidad guppies (*Poecilia reticulata*)

Photo from Wikipedia

interactions of animals within a group, we can derive from this knowledge information about the spread of diseases, reproduction and predator-prey relationships....Such knowledge may help wildlife managers and conservationists, for example, to optimize disease management, breeding programs or reintroduction activities."

If male guppies in the wild are better at finding food in the presence of females, what about other *Poecilia* species (e.g., mollies), and does this mean anything for these fish in our aquariums?



References:

Snijders Lysanne, et al. "Females Facilitate Male Food Patch Discovery in a Wild Fish Population," *Journal of Animal Ecology*, August 12, 2019, doi:10.1111/1365-2656.13086

<https://doi.org/10.1111/1365-2656.13086>

Fin Fun

Down Memory Lane

Our Holiday parties are among the most memorable of our meetings each year. Are your favorites on this list ?



AUCTIONS
 AWARDS
 CAKE
 DECORATIONS
 FLAGSHIP
 FRIENDS
 GEORGIA
 MENU
 PALACE
 PHOTOS
 RAFFLES
 SALADBAR

Solution to our last puzzle: **Scrambled Rivers**

Location	Scrambled River	UNscrambled River
New Guinea	SPIKE	SEPIK
Africa	BMAIZEZ	ZAMBEZI
Russia	GALVO	VOLGA
India	ANEGGS	GANGES
Europe	UBANED	DANUBE
China	TANGYEZ	YANGTZE
South America	ZAMANO	AMAZON
Venezuela	ICROONO	ORINOCO
Canada	MALIBUCO	COLUMBIA
Turkey	GRISTI	TIGRIS



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**KLAUS STEINHAUS MEMBER CLUB
OF THE YEAR AWARD**

A huge and heartfelt thank you to the Greater City Aquarium Society for believing in the idea of fish conservation within the hobby and in 2004 being the first club to implement CARES. Since that time, club members have dedicated their time to ensuring the program's success, made outstanding overall contributions to secure a positive future for conservation priority fish, shared knowledge openly, and demonstrated altruistic assistance to others with their CARES endeavors.

November 6, 2019
Queens, New York

