

modern AQUARIUM



March 2023
volume XXX
number 1

Greater City Aquarium Society - New York

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Series III Vol. XXX, No. 1 March, 2023

ON THE COVER

Our cover photo this month features the beautiful mouthbrooding *betta* from Northern Sumatra, *Betta rubra*. See Gary Lange's article on page 13. Photo by Gary Lange.

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From the Editor

by Dan Radebaugh

Welcome back to another year with the Greater City Aquarium Society! I Hope everyone is recharged and ready for another great year—our **101st**!

This issue is of course chock full of information on fish and fishkeeping, as well as on how we did last year, both as individuals and as a club. You'll find who garnered the most Breeders' Award points, Author awards, Bowl Show awards, and who is the Aquarist of the Year!

You'll also see last year's index of articles, so that you can more easily find that article that you liked or thought might be helpful but don't remember what issue it was in. Almost all of us sometimes want to look something up from the previous year, but don't remember exactly where it appeared. Well, that's what indexes are for! It's like consulting the Oracle, but for the past rather than the future!

And speaking of the past, one of the nice things about a club having a magazine such as **Modern Aquarium** is that the past can speak to us! What were we up to in days gone by? Who were the folks who built this club and this hobby and put it on the map in such a way that we can feel a sort of kinship with them all these years later?

On page 9 Joe Ferdenzi, our de facto club historian, introduces us to a couple of aquarium hobby stars of yesteryear, Bill Jacobs and Harold Stout. I hope you enjoy reading about these heroes of the golden age as much as I have! All of us in the aquarium hobby today have benefited from the contributions of these and other heros of the past. As in all our human endeavors,



we stand on the shoulders of those who have gone before.

What each of us does counts! I'm sure that many of you can name more than a few people whose contributions to this hobby and/or to this club have been especially vital. Where will the next cadre of such "pillars" come from? Think about it! Maybe you'll find one of them by looking in the mirror!



Aquarium Care of Cichlids



by Greater City member Claudia Dickinson
(Animal Planet® Pet Care Library)

Hardcover – Also available on Amazon Kindle
<https://www.amazon.com/Aquarium-Cichlids-Animal-Planet-Library/dp/0793837774>



GCAS Programs

2023

March 1	Tom Keegan <i>Fish Biology 101, Part 1</i>
April 6	David Banks <i>Lake Tanganyika Cichlids and Appropriate Tankmates</i>
May 3	Emiliano Spada <i>Antique Aquariums and Equipment</i>
June 7	Karen Randall <i>Sunken Gardens</i>
July 5	Dr. Paul Loiselle <i>The World of Jewel Cichlids</i>
August 2	Night At the Auction
September 6	Sebastian Alvarado <i>Color Changes In Fish</i>
October 4	William Guo <i>Freshwater Shrimp</i>
November 1	Tom Keegan <i>Fish Biology 101, Part 2</i>
December 6	Holiday Party!

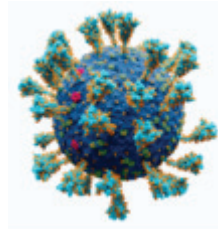
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The Greater City Aquarium Society meets every month except January and February. Members receive notice of meetings in the mail or by email. For more information, contact: Dan Radebaugh at (718) 458-8437, email to gcas@earthlink.net, or fax to (347) 379-4984. 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

What's ahead? The lightness of carefree days, relaxed evenings and feelgood sunshine are just around the corner! With the long wait of winter almost over, I'm sure we'll all be back with renewed vigor, just like the Covid picture below!



Winter days are still wearing a bit on the soul, but the approach of spring, with its renewal of bright days, shows us even brighter possibilities for ourselves and our hobby. So how shall we begin this metamorphosis? Well, maybe take some of those design ideas you've been considering, and bring them into reality! Out with the old and in with the new! Maybe even some new fish! Maybe go from natural to whimsical. Whatever works for you! The resulting new setups with airy takes on nature will of course probably inspire you to want more tanks, which may of course result in some pushback from your spouse, so perhaps some discretion is called for when discussing all this. "You have too many tanks, and you love them more than you love me" might be a part of the resulting conversation, so keep your wits about you!

Inspirations for décor can come from the most unexpected places: pet stores, aquariums, programs at Greater City, fellow hobbyists, magazine pictures of exotic locales, even travel. You can of course open a book or magazine (maybe **Modern Aquarium!**) to have design ideas at your fingertips. So when you can, open a book or magazine. Travel, after all, is not always the *sine qua non* for inspiration. You could be a couch potato and still come up with all kinds of designs! You can snag great finds at our auctions and raffles, or at garage sales and flea markets. I see items at every auction that most people just let go by, when with a little curiosity they could have inspired a truly remarkable adventure in aquascaping!

If you never try, you'll never know!

Horst





GCAS Thanks You!

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Greater City Aquarium Society

Prohibited Species List

This is a list of species prohibited from being sold, given, or traded at any Greater City Aquarium Society (GCAS) auction. These species are restricted by NYS or federally, require special permits, and/or have complicated trade requirements. GCAS will remove any of the listed items, and ethically dispose of, or turn over such items to the proper authorities. Common names may differ, so please check the scientific names of any species you sell.

Prohibited Aquatic/Bog/Marsh Plants:

Golden Bamboo (*Phyllostachys aurea*)
Yellow Groove Bamboo (*Phyllostachys aureosulcata*)
Common Reed Grass (*Phragmites australis*)
Marsh Dew flower (*Murdannia keisak*)
Purple Loosetrife (*Lythrum salcra*)
Reed Manna Grass (*Glyceria maxima*)
Smooth Buckthorn (*Frangula alnus/Rhamnus frangula*)
Yellow Iris/ Yellow flag iris (*Iris pseudacorus*)
Anacharis/Elodea/Brazilian water weed (*Egeria densa*)
Eurasian minfoil (*Myriophyllum spicatum*)
Broadleafwater minfoil (*Myriophyllum heterophyllum X M.laxum*)
Cabomba (*Cabomba caroliniana*)—any similar species we cannot identify will be removed from the auction.
Floating Primrose Willow (*Ludwigia peploides*)
Frogbit (*Hydrocharis morsus-ranae*)
Hydrilla/water thyme (*Hydrilla verticillata*)
Parrot Feather (*Myriophyllum aquaticum*)
Uruguayan Primrose Willow (*Ludwigia hexapetala/grandiflora*)
Water Chestnut (*Trapa natans*)
Yellow Floating Heart (*Nymphoides peltata*)
Slender false brome (*Brachypodium sylvaticum*)

Prohibited Aquatic Inverts:

Asian Clam (*Corbicula fluminea*)
Zebra Mussel (*Dreissena polymorpha*)
Quagga Mussel (*Dreissena bugensis*)
Asian Sea Squirt (*Styela plicata*)
Asian Shore Crab (*Hemigrapsus sanguineus*)
Bloody Red Mysis Shrimp (*Hemimysis anomala*)
Carpet Tunicate (*Didemnum spp.*)
Chinese Mitten Crab (*Eriocheir sinensis*)
Faucet Snail (*Bithynia tentaculata*)

Chinese Mystery Snail (*Cipangopaludina chinensis malleata*)
Japanese Mystery Snail (*Bellamya japonica*)
New Zealand Mud Snail (*Potamopyrgus antipodarum*)
Rusty Crayfish (*Orconectes rusticus*)
Suminoe Oyster (*Crassostrea ariakensis*)
Veined Rapa Whelk (*Rapana venosa*)
All freshwater mussels or clams native to the USA

Prohibited Fish Species:

Bighead Carp (*Hypophthalmichthys nobilis*)
Black Carp (*Mylopharyngodon piceus*)
Large-scale Silver Carp (*Hypophthalmichthys harmandi*)
Silver Carp (*Hypophthalmichthys molitrix*)
Round Goby (*Neogobius melanostomus*)
Tubenose Goby (*Proterorhinus seilunaris/marmoratus*)
Eastern Mosquitofish (*Gambusia holbrooki*)
Western Mosquitofish (*Gambusia affinis*)
Dojo Loach/Weather Loach/Gold/Marbled Loach (*Misgurnus anguillicaudatus*)
Sea Lamprey (*Petomyzon marinus*)
Tench (*Tinca tinca*)
Walking Catfish (*Clarias batrachus*)
Snakehead (All species described and undescribed in the genus *Channa*)
All species of Piranha
Asian Arowana (*Scleropages formosus/inscriptus*)
Zander (*Sander/Stizostedion lucioperca*)

Prohibited Reptiles/Amphibians:

Alligators/Crocodilians
Monitor lizards
Newts/Salamanders

Other Rules:

Any species native to the State of New York is Prohibited.
Any Game species defined by DEC or NYS is prohibited.
Any species protected by the U.S. Endangered Species Act is prohibited.
Any species not listed that is prohibited federally.
Any species that violate the Lacey Act is prohibited.
Any species imported or transported illegally is prohibited.
Any species GCAS feels may be illegal or a threat not listed may be removed from auction.
Any species listed as “Dangerous” or “Injurious” is prohibited.
Any species that violate CITES laws is prohibited.

For pictures:

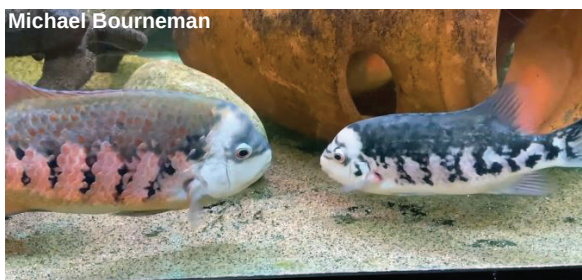
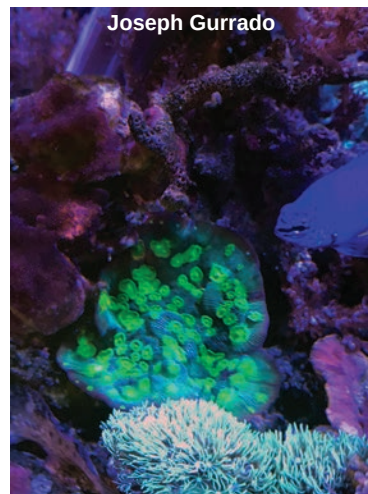
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Fishy Friends' Photos

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!

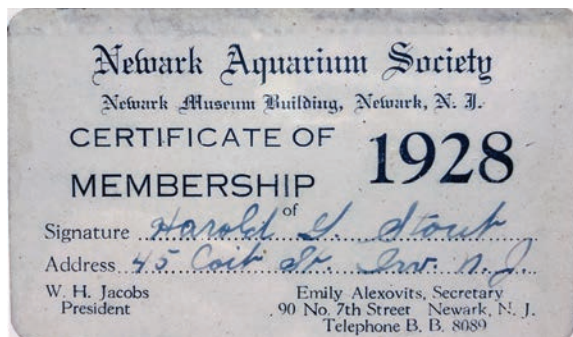


A Rare Relic From the First Golden Age of the American Aquarium Hobby

by Joseph Ferdenzi,
President Emeritus, Greater City Aquarium Society

Can you travel back to the past? While I wish there was something like the famous time machine of H. G. Wells' novel, I'm afraid there is not ... yet. But in the meantime I believe certain objects have the ability to bring alive a part of the past if we focus enough attention on them. This is so with the subject of this short article.

It is a small item, a card no more than approximately 4 inches by 2 inches in size. As the accompanying photo shows, it is a 1928 membership card for the Newark Aquarium Society. This kind of ephemera rarely survives the decades. In fact this card is the only one of its kind I have ever seen. Actually, it's a small miracle that it has survived. More importantly, for me, it has several attributes that make it a special portal to the past.



WHERE EXPERTS AND AMATEURS EXCHANGE IDEAS AND SPECIMENS
Besides the permanent exhibits in public aquariums, societies of aquarists interested in both goldfish and tropical toy-fish culture hold annual exhibitions and award prizes to professionals and novices (see text, page 303). An exhibition of the Newark Aquarium Society, the largest in the United States.

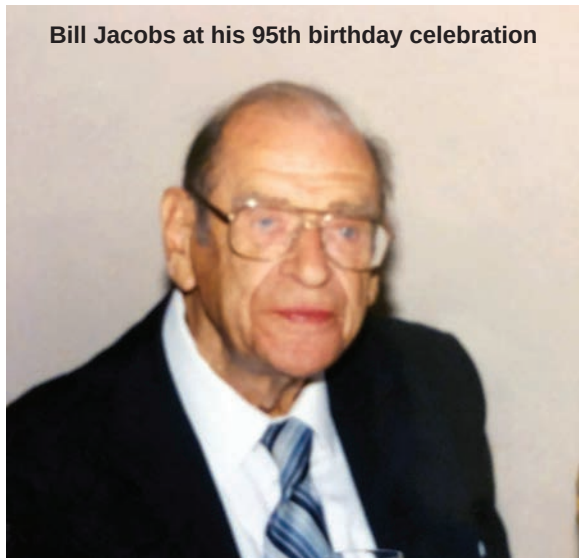
For one, it is from 1928. That represents a year in which the aquarium hobby was rapidly gaining in popularity. The 1920s and 1930s were to see giant advancements in the formation of aquarium societies (including our own in 1922), the first great aquarium magazine (**The Aquarium** in 1932), and the first aquarium book with color photos (**Exotic Aquarium Fishes** in 1935). New methods of constructing tanks and various advances in filtration, heating, and lighting took place in these years. In short, the aquarium hobby became an important part of the American cultural scene.

The Newark Aquarium Society was part of that scene. Based in New Jersey's largest city, it was for a time the largest aquarium society in the U.S. This is in part illustrated by the accompanying photo of their 1929 show. Look at all those tanks and all those members! This photo was a part of a feature article on the aquarium hobby that appeared in the March, 1931 issue of *National Geographic*.

The other notable fact about that 1929 show is that the president of the society the year before was a gentleman by the name of William Jacobs. You can see his name printed on the bottom left corner of the membership card. Remarkably, that was the only year that he served as president. How do I know that? Because in the late 1980s I became friends with him. Bill, as he was known to all his friends, was an amazing aquarist who was breeding tropical fish well into his 90s.



Bill Jacobs at his 95th birthday celebration



Bill was born in New Jersey in 1903, so in the year he was president he was only 25 years old! Quite impressive for such a young man to be president of the country's largest aquarium society! You can see how young he was in the close-up of the famous 1929 photo (previous page) in which he is standing next to his wife, who is holding their only child, William Jr.

The other interesting feature of the card is the name of the member to whom it was issued. Unlike the printed names, this is written in blue fountain pen ink. His name is Harold Stout, and he lives at 45 Coit Street in Irvington, New Jersey. A little research discloses that Harold, having been born in 1910, was only 18 years old when he joined the society. His home at 45 Coit Street is still standing—a small, two story frame house on a block of similar homes.

Irvington borders Newark, so the distance from young Henry's house to the Museum Building, where the society met was not that great. Today it is no more than a 15-minute car ride. In 1928 it is likely that 18-year old Henry did not own a car. So unless a parent drove him to the meetings, Henry would have taken a 30 minute bus ride. I can just picture this young man going to and from in the evening hours, with great excitement over participating in the activities of this very prestigious aquarium society. Sit with your eyes closed and imagine the scene. That Henry's membership card survived all these decades is perhaps an indication of how much he cherished those evenings with his fellow enthusiasts.

Henry passed away in 1994, long before I acquired this card. So too did Bill, who died in 1999 at the age of 96 (mind you, Bill was still breeding numerous fish at 95!).

The 1928 card has a prominent place in my display of aquarium memorabilia, which includes a 1930s brass tank that was owned by Bill, and his small "shipping can" made of galvanized metal (see photos below) that was undoubtedly used by Bill to transport his fish to and from meetings in those early days of the hobby.



As for Henry, all I can say is that nowadays you don't see many 18-year olds joining aquarium societies. I don't know for how long he was a member, but for however long it was, it was enough to establish him as a hobbyist whose name has lived on into our



21st century hobby. Unfortunately, I was unable to obtain any information about the third person named on the card, Emily Alexovits, the society's Secretary.

Author's Acknowledgment: I am grateful to the late Wayne Leibel, a foremost collector of all things from the aquarium hobby's past, for preserving this card, and to our mutual friend Lee Finley, a great student of aquarium history, for having the kindness to send me the card.



<https://www.amazonasmagazine.com/>

Tonight's Speaker: March 1, 2023

Tom Keegan, Speaking on Fish Biology 101

Tom Keegan has been keeping fish since he was five years old, and has never left the hobby. He started with a Metaframe ten-gallon tank and a box filter in the early sixties, and began working at the local aquarium shop when he was twelve. Using equipment from the store, he built a small fishroom in his basement, and started breeding angelfish and others for extra money. Tom earned his Pre-Med BS in Biology from Stony Brook University in 1978. Working at, and later managing the store, he helped, taught, and was involved with many professors at Stony Brook with their experiments with fish, and became the go-to person for guidance.



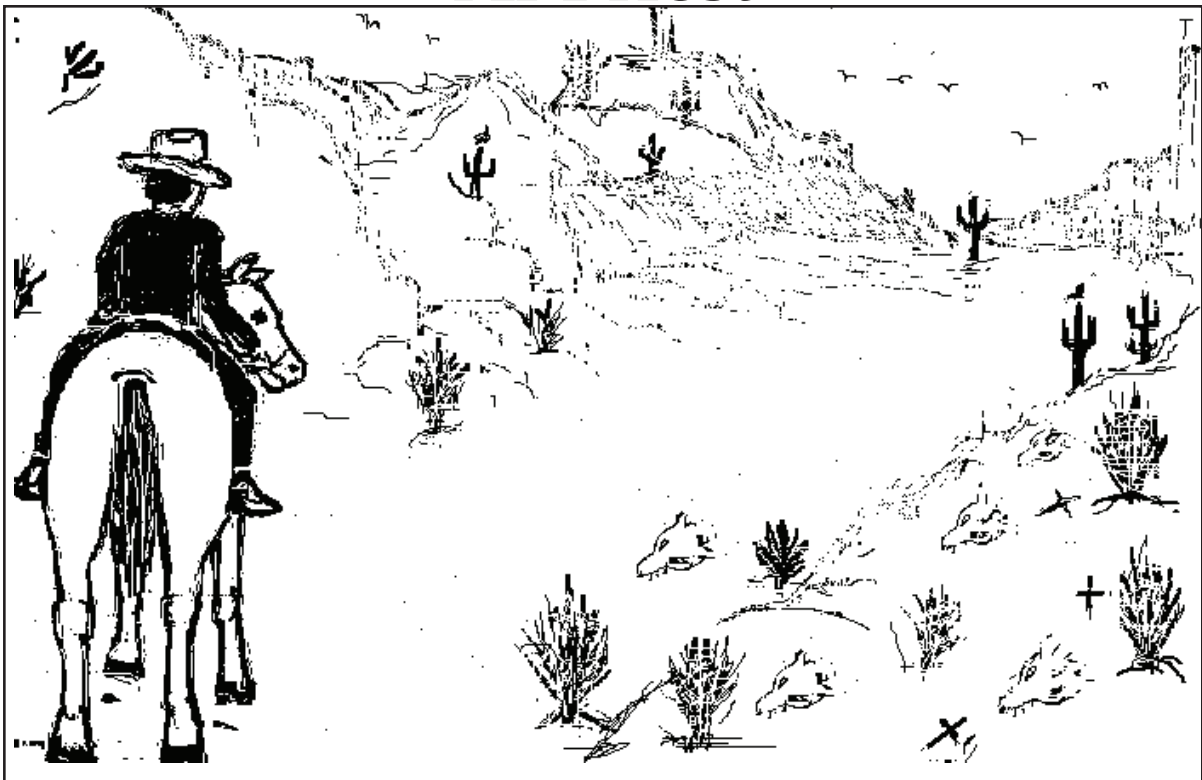
At the end of his junior year in college the store was up for sale, and he took the leap and purchased it. He operated the store for some thirty years, building it up to over 300 tanks plus a pond section with about twenty vats. Seven days a week he lived the dream of observing and keeping fish from all over the world. In 2003 when the store closed (long story), he moved on to a new career, but never stopped keeping fish in his home and yard. He now runs a small koi farm on his property, and has a fishroom in his house where he breeds various species for fun. An active member of LIKA, GCAS, and NCAS, Tom has a lot of fish and equipment experience, as well as knowledge learned from many of the old-timers in the hobby.

From his experience with fish over the years he knew there was something more going on in a fish's head than most folks give them credit for. Through reading and research he found that there was a lot of material about this, so he put together a two-part lecture. The first part talks about the physical aspect of fish senses—how they see, hear, smell, taste and yes, feel. The second part explores how they use these senses, and how cognitive fish really are. They think and learn much better than most people imagine!



December's Caption Winner:

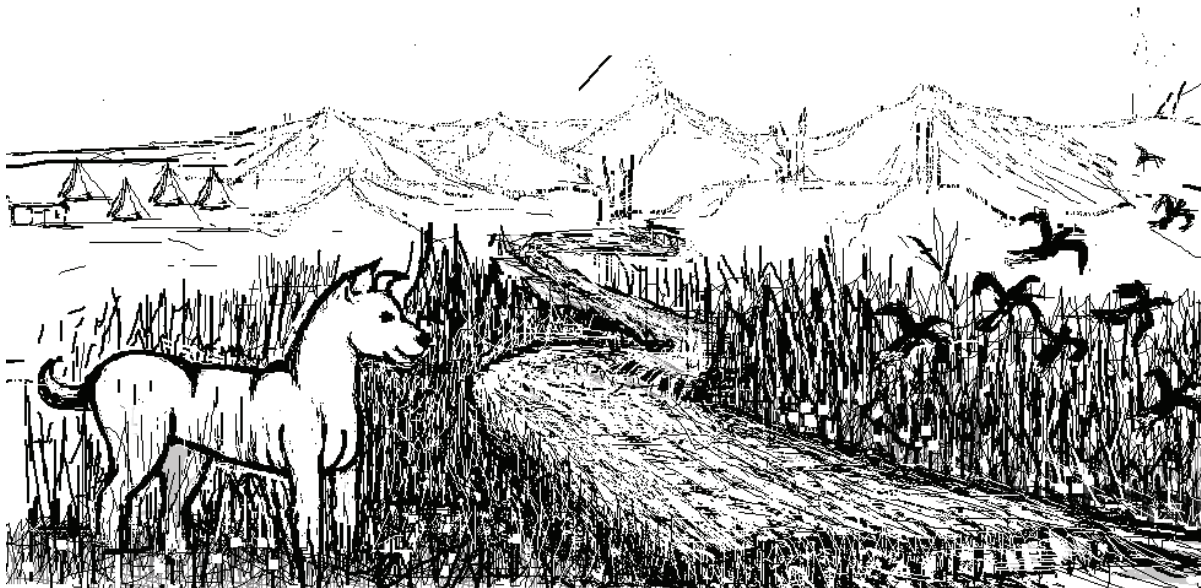
Al Priest



My bargain-priced GPS was wrong again!
There are no endangered desert pupfish in this valley!

The Modern Aquarium Cartoon Caption Contest

*Modern Aquarium has featured cartoon contests before, and they're back! 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 may turn in to Marsha or Dan 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:



Betta rubra

by Gary Lange



From Northern Sumatra, Indonesia, this is one of my favorite mouthbrooding *bettas*, coming in at just under three inches. They do amazingly well in a well planted tank. That gives the males enough room to hide when brooding. I kept these for several years and 3-4 generations, but then they got outcompeted by some of my more aggressive rainbowfish. A tank to themselves is really the best way to enjoy these wonderful fish. Males will display for other males, and especially with the females.

Temperatures from 70-76F seem to work well, at least in my hands. Most mouthbrooding *bettas* like it cooler. Feed live foods if possible, like mosquito larvae or blackworms, which are my go to food for many of my fish. Daphnia and white worms also work well. Frozen foods such as brine shrimp and blood worms are also helpful in conditioning them to spawn. Put a cover on the aquarium! I can't stress this enough. Don't leave it uncovered even for a minute, as they will jump when you aren't looking.

When I see a male holding I tend to remove the other *bettas* in the tank and let him release when he is ready. If you chase him to remove him he might spit the eggs prematurely. Fry were fed microworms, and fairly quickly live baby brine shrimp.

I also suggest, really for most mouthbrooding *bettas*, to leave a six-inch clay flowerpot on its side as a place where spawning can take place. Eggs tend to get lost in the gravel, and they are much easier to find when they drop to the bottom of the flowerpot. Some of the other mouthbrooding *bettas* can be pretty shy, but not these guys. They *always* were out front waiting for food.

You might not find them at your local pet store, but they are certainly worth the effort to seek them out. Their bright red colors and easygoing nature will make you glad you sought them out. Now I just need one more tank without rainbowfish so I can get some back.....



**To my Dear Friend Elliot Oshins
Gone, but CERTAINLY NOT forgotten!
You almost made it to 100!**

I first met Elliot about 25 years ago (of course at a local fish store that became an almost daily ritual among the boys), and we became best buddies. He was a kind and very generous man. Elliot was never shy about expressing his opinions. OY!!! We would sit in the main room at the Boulevard (where he resided for the last year and a half) and he would comment (ALoud) about this guy, that guy, look at that outfit, look at all these old ladies (although he was 15 to 20 years their senior).



He said he wasn't interested in romance. He had his fair share through the years but it was still on his mind. Elliot had a really good sense of humor. He loved to tease the waiters, waitresses, nurses and doctors, and if they had time, he'd tell them a joke or two from his vast treasure trove of jokes. I became his sounding board when he was thinking about a cartoon or the upcoming story that he often fantasized about. Of course there were always revisions which he insisted I must hear from the beginning of the story EVERY time. He was a man of many talents: artist, writer, woodworker, fish enthusiast etc. There was always room for a new group of fish or 1 or 2 or 3 or..... new plants. I already miss him dearly! I visited Elliot at least once a week for the past few years and spoke with him almost daily. I would often find 20 messages on my phone and I would call him back asking if he was all right, and he'd say, "Sure, why?" I'll cherish all the meetings, fish auctions, lunches, dinners, and birthday celebrations that we shared.

RIP, DEAR ELLIOT!
Love, Artie Friedman

The
MUSEUM OF
AQUARIUM & PET
HISTORY

If you like history, and you like pets, then this is the place for you. Dedicated to the history of aquarium & pet keeping, The Museum of Aquarium & Pet History includes a huge depository of over 3,000 items all focused on the pet industry. From antique fish bowls, aquariums and cages, to foods, medications, books and advertising signs, we've got it all! To learn more about this amazing collection of historical pet artifacts, please visit our website:

moaph.org

<https://moaph.org/>

Name That Fish Right, Boy!

by Dan McKercher

I put some black corys into an auction and labeled them as black Venezuelan corys. I thought nothing of it, as I had acquired the parents with that name. I also noticed the name is widely used for these critters all over the industry. It is thought that they are a color variant of the *C. schultzei* or the *C. aeneus*.

I was approached and told that someone took issue with the name I put on the bags. I explained that this is a common name for these little fellas and nothing more. Then the auctioneer announced that they were NOT as they were marked. He stated that Venezuela does not have black corys within its borders, and that they are just black *C. schultzei*. I saw no reason to challenge his statement. After all, he was partly correct, as right now nobody has discovered black corys in Venezuela that I know of. The part he got wrong was the name. They are known as either Venezuelan Black, black *schultzei*, or black *aeneus*.

I got to thinking about how many other fishes fall into the category of what most purists in the hobby would consider “incorrectly named.” I am not talking about hybrids here, as that can turn out to be a very interesting or even “heated” topic of conversation.

One that comes to mind is the Moscow black guppy. Are they indigenous to Moscow? Nope. The guppy is reported to come from South America for the most part. Many have taken pleasure in creating their own line of guppy and naming it as they see fit. Nothing to see here folks, other than we get to see some real cool looking guppies with interesting names.

How about Endlers livebearers? They got their name from a fella by the name of John Endler. Get this—he RE-discovered them, and poof! Endlers Live Bearers! The first discovery was by Franklyn F. Bind in 1937. Both times they were discovered in Venezuela. Gotta wonder why they weren’t named Venezuelan Live Bearers. LOL! Some would consider them to simply be a land-locked variant of the guppy. They do interbreed with guppies, so judge for yourselves, folks.

Now for, as some call it, the Iranian Red Rainbow fish. If you think, as I did, that these fish are from Iran you would be wrong. The Red Rainbow is found only in Lake Sentani and its tributary streams in the northeastern region of West Papua, New Guinea, near the city of Jayapura. Other common names are Salmon Red Rainbowfish, Red Irian Rainbowfish, and New Guinea Red Rainbowfish.

The Cuban Cichlid? All depends who you talk/read/listen to. Different folks claim it to be from Cuba, but specimens have also been collected in Barbados, Haiti and the Dominican Republic. So where did they really come from? Guess you had to be there.

I was able to find the above rather quickly on the internet. It solidified my thought that a name is just a name and does not necessarily tell you anything about the person/fish/object.

For instance, I have met folks and assumed just by hearing their last name where in the world they or their parents came from. Sometimes I’ve been correct while other times I was way off base.

Another interesting facet of this hobby is common fish names:

1. A peacock is a type of bird, but also a fish.
2. Molly is a woman’s name, but also a fish, AND a drug!
3. Zebra is a horse-type animal, but also many types of fish.

The rabbit hole is wide and deep on this subject! In closing, the lesson learned here is: do not pre-judge something by its name before doing a bit of research first. I know from personal experience that it is no fun to put one’s foot in one’s mouth!

PS. Just in case you are wondering, I am only partly Scottish. ©

Photo from Aquatic Arts.com



Moscow Black Guppies



What is a *Limia*?

by Mike Hellweg, CFN
(Certifiable Fish Nut)

Since we have chosen to support the Lake Miragoâne *Limia* project at Oklahoma University with our MASI Challenge for 2022, it is a good time to take a look at what exactly are *Limias*. Many authors do not support the genus *Limia* at full generic status currently, but for the purposes of this article, we will. I'll go into the differences below.

The *Limias* are a group of about 23 species of *Poeciliid* live bearing fishes endemic to several Caribbean islands in the Greater Antilles. A single species each is found on Cuba (*L. vittata*), Grand Cayman (*L. caymanensis*) and

Jamaica (*L. melanogaster*). But the real hotbed of their evolution is the Island of Hispaniola, where at least 20 species have been found! Hispaniola is divided into French speaking Haiti on the western end of the island and the Spanish speaking Dominican Republic on the eastern side of the island. Haiti is home to at least 13 species, with five found in rivers and streams (*Limia melanonotata*, *L. ornata*, *L. pauciradiata*, *L. rivasi*, and *L. tridens*) and the rest found in one of the largest freshwater lakes in the Caribbean, Lake Miragoâne (*Limia fuscomaculata*, *L. garnieri*, *L. grossidens*, *L. immaculata*, *L. islai*, *L. mandibularis*, *L. miragoanensis*, and *L. nigrofasciata*). It's like a miniature livebearing version of the Cichlid species flock in the Great Lakes of Africa. With so many species found in one place, it's easy to see why the folks at Oklahoma University want to study them and find out more about them. Finally, at least seven species are found on the Dominican side of Hispaniola (*Limia dominicensis*, *L. montana*, *L. perugiae*, *L. sulphuraphila*, *L. versicolor*, *L. yaguajali*, and *L. zonata*). I say "at least" as there still may be a few species yet to be described. Hobbyists are aware of at least one more "variant" or distinct population of the so-called Tiger *Limia*, and there may be more that have yet to be found.

Limias are similar to their *Poeciliid* cousins, the mollies. In fact, some hobbyists call them

the "Island Mollies", but there are differences. In general, the *Limias* are overall smaller than many of the mollies, with the largest *Limias* (*Limia nigrofasciata*, *L. perugiae*, and *L. vittata*) topping out at about two and a half inches to three inches and the largest mollies (*Poecilia velifera*, *P. petenensis*, *P. mexicanus* and *P. latipinna*) topping out at nearly

double that. Teeth in some species are very different as well. So different, in fact, that some authors previously proposed a separate genus, *Odontolimia*, for some of them. Before DNA testing was available, scientists often differentiated

Poeciliid livebearer species based on tooth structures and on differences in the reproductive structures of the male's anal fin which is known as



the gonopodium. In *Limia* there are no spines on the subdistal ray segments next to the palp (the soft, fleshy part of the gonopodium) while in *Poecilia* mollies there are several spines on these same ray segments.

The mollies are found on the mainland of North, Central and South America from the Carolinas in the north, along the U.S. coastline through Mexico and Central America to Colombia and Venezuela in northern South America, while the *Limias*, as mentioned earlier, are found only on some of the islands of the Greater Antilles in the Caribbean Sea.



HOW DOES STRESS AFFECT FISH?



by Staff Writers – www.liveaquaria

Reprinted from the May 2018 Raleigh Aquarium Society Newsletter Vol 37 Issue 5

Assorted aquatic-related articles obtained from various sources.

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Stress is present in the lives of all living things and is the force that brings about physical change and adjustment. Small amounts of stress can be harmless, or even beneficial, but high levels of stress or prolonged periods of low stress can create severe health problems. Many people are aware of stress in their own lives and can name many of the causes as well as possible treatments. However, the stress that affects fish is different and much more widespread. The nature of keeping aquatic species in confined environments generates many stresses that are unique to aquarium fish. To be successful in keeping healthy aquarium fish, you need to know what causes stress in fish as well as how to prevent it. Elevated stress levels are at the root of most health problems in fish.

What is stress?

Stress is any condition that causes physical or mental discomfort that results in the release of stress-related hormones or results in specific physiological responses. Stressful events will cause an increase in heart rate, blood pressure, blood sugar, and the release of cortisol. Stress can be physical, psychological, or environmental. Stress can either be short and sudden, or long and chronic. Mild short-term stress has few effects, but severe long-term stress leads to illness or death.

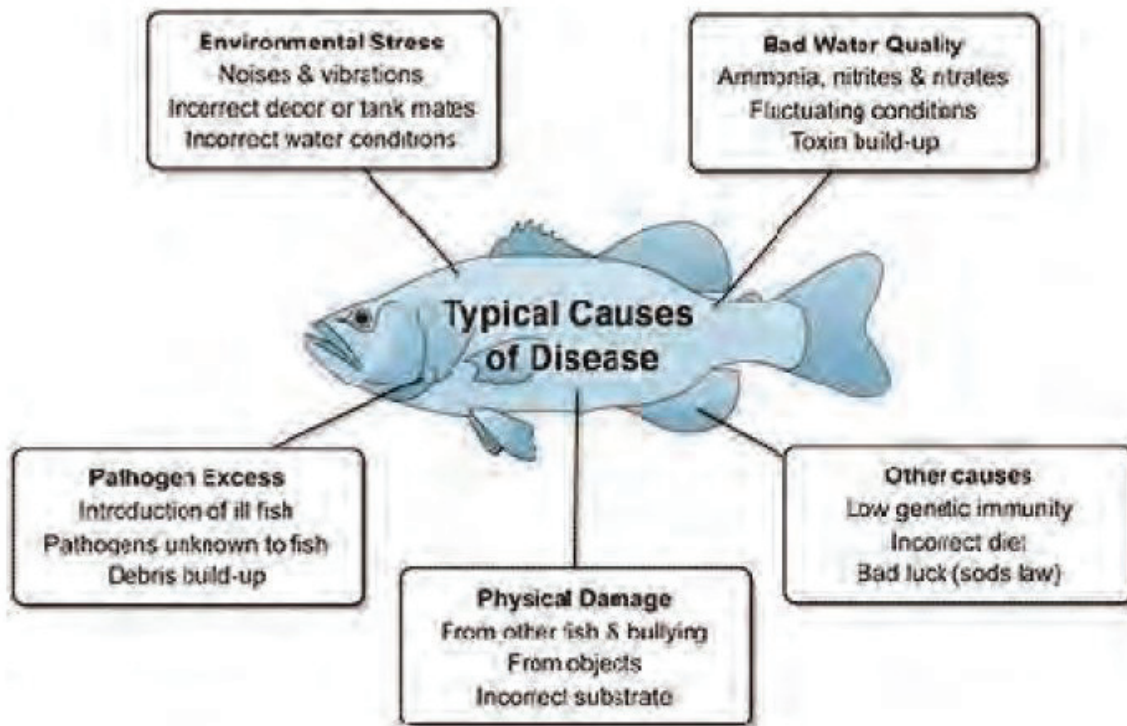
The effect stress has on a fish's health

Short-term stress will cause an increase in heart rate, blood pressure, and respiration. The fish is reacting much as we do with the fight or flight mode. Fish can only maintain these altered states for a short period of time and then they will adapt or the stress will become chronic. Stress is accompanied by the release of the hormone cortisol, which is responsible for many of the negative health effects associated with stress. In addition to having a negative effect on growth, reproduction, and digestion, chronic stress will also lower the ability of the immune system to respond effectively and fully. This lowered immune response is what allows parasites, bacteria, and fungi to infect a stressed fish. Depending on the duration of the stress and its type of treatment, it can lead to illness or death.

The causes of stress

There are dozens of potential stresses to fish, but common causes are:

- Elevated ammonia
- Low oxygen levels
- Inadequate tank size
- Elevated nitrate
- Harassment from other fish
- Overstocking of tank
- Improper pH level
- Lack of hiding places
- Medications and water treatments
- Fluctuations in temperature
- Improper nutrition
- Improper salinity



Elevated levels of ammonia, nitrite, and nitrate all create deterioration in fish health due to stress. High levels can cause severe stress, whereas slightly elevated levels can contribute to chronic stress. pH levels that change abruptly cause acute stress and continually elevated or lowered pH levels can cause chronic stress. Many fish adapt to long-term changes, but there are limits. pH changes of more than 1.5 points below or above recommended levels are going to have a negative effect over time and should never be considered acceptable.

Temperature fluctuations are a much underappreciated stressor of fish. Most tropical freshwater and marine fish do not tolerate temperature changes very well. Many tanks that are not set up properly will have over the recommended maximum of one degree of temperature fluctuation in a 24-hour period due to room temperature, lights, and equipment. The daily fluctuations will create chronic stress as will having a too low or too high temperature in the tank for the species of fish present. Wild fish live within very specific salinity levels (levels of salt in the water). Their bodies work hard to maintain the osmotic gradient between themselves and their environment. If their environmental salinity is not specific to their needs and is not held at a steady level, they have to work harder to maintain their osmotic gradient, which generates chronic stress. Oxygen levels that are below recommended levels can cause fish to 'breathe'

faster than optimum and this can result in chronic stress. Obviously, very low oxygen levels can lead to severe short-term stress and death.

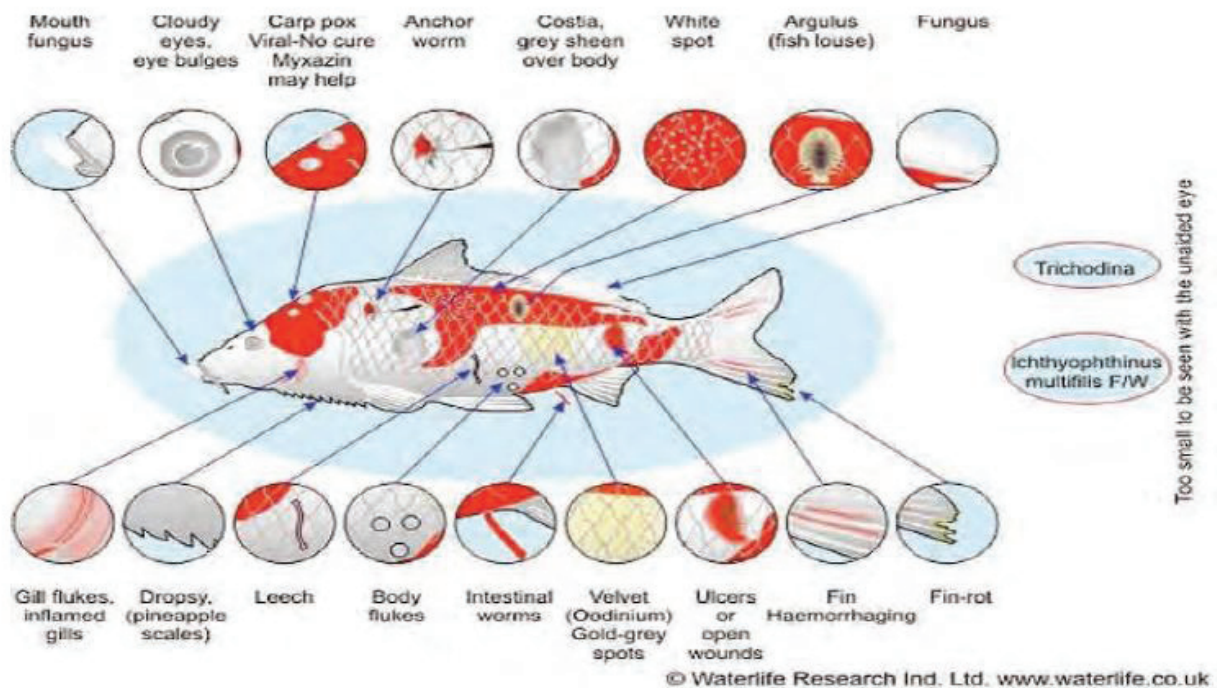
Harassment from other fish and lack of hiding spaces go hand in hand. There should be two suitable hiding spaces for every fish in the tank, otherwise there are going to be fish that are stressed and bullied. Remember that, unlike their environment in the wild, these fish are confined and cannot get away from aggressors. Aggression is a very real problem in many tanks that leads to many injuries, infections, and death. Overstocking of the tank is a common problem that contributes to almost all of the stresses in the above list, from water pollution to oxygen depletion to harassment.

Do not overstock your tanks. If you want to stress your fish, put too many in the tank and it will happen every time.

If you add something to the water to treat a disease or water condition, be aware that it can be stressful to your fish. Try to avoid treating the water if at all possible and always use a quarantine or treatment tank. Copper is an excellent treatment for ich or velvet, but it can be toxic and stressful to fish. Of course, using it is much better than letting a fish die from velvet, but it should never be used in a tank with healthy fish.

How to eliminate stress

While it is impossible to eliminate all stress, we have the ability to limit or prevent many of the



causes. Acute stress is more obvious and needs to be addressed very quickly. Chronic stress is often not visible. It can take weeks and months to develop. Your fish may appear to be doing fine, until one day one gets sick and dies, and then a few weeks later another one does and so on. If you have fish that are getting sick and dying, there is probably a source of stress on them that needs to be identified and remedied.

The other big source of stress is bringing new fish into your aquarium. Buy only from the most reputable sources that move the fish in the most careful and humane manner. Acclimate your new fish properly, use a quarantine tank, and make sure your new fish are fed appropriately.

Spend extra time on the new fish and be as careful as you can. Taking a little time here can

make all the difference in breaking the chronic stress cycle and keeping these fish healthy and disease free. Stress is one of the most critical factors in fish health. Only by understanding the effects that stress has on fish, as well as being able to identify and prevent common stresses, can we eliminate this problem.

As aquarists, we need to be responsible for the health and welfare of all of our fish. Provide the highest quality water, nutrition, and suitable tank environment. Introduce new fish carefully and always use a quarantine or treatment tank when necessary. If we work hard to reduce the stress in our fish, we can virtually eliminate disease and health problems in our aquarium.



Add the final notch to your belt!



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



THE LOST AMAZONIAN

by ELLIOT OSHINS

While vacationing in England and spending my last week in London, I was lucky to have witnessed what they call the "Trooping of the Color," which is held in June to celebrate the Queen's official birthday. The seven regiments of the household divisions provide a spectacular pageantry in all their colorful uniforms. It is one of the most thrilling and magnificent parades to witness. The Queen and the Royal Family join in the parade in very fancy horse-drawn carriages, quite magical, a photographer's dream.

The city of London is a great town in which to sightsee. I find it very enriching visiting all the great museums, historical places, or simply just talking to the people. While on vacation, I usually always try to visit an aquarium store. So, asking a local fellow, I was told there was one on Baker Street. (Need I say more?)

It took me some time, but I found the place. It was called "Something Fishy." The store wasn't too big, but I was very impressed with the selection of African Cichlids. The proprietor, Trevor, was a very charming and extremely knowledgeable man. We had a very stimulating conversation on the different aspects of the hobby. During our conversation, Trevor told me there was a fish club meeting that Wednesday, and the location was not too far from my hotel. He also told me that it would be worthwhile to attend as the guest speaker was really terrific. I thanked him for his time and told him I would try to attend as I was leaving Thursday for home.

After enjoying a fish and chips dinner on Wednesday, I decided to attend the meeting. It took some diligent map-reading and asking directions, but I finally found the place. The meeting was being held in a space over a pub called "Freemason's Arms" on Downshire Hill.

I climbed a long flight of stairs, and noticed that the meeting was already in progress. The president was talking about the achievements of the guest speaker. He spoke in a Cockney accent, which I found somewhat hard to understand. The speaker's name was Harry Morse.

He was about 50, quite tall, broad shoulders and completely bald, all dressed in black except for black and white shoes. He carried a Siamese cat in his arms. It looked like a scene from an old Peter Lorrie movie. From his discussion, I found out he had a Ph.D. in science, and taught at Oxford University, where he was a full professor.

The talk was very informative, and the slide show was one of the best I have seen. The lights went out and to my surprise I didn't snooze once, so by my standards it was worthwhile.

After the lecture, there was an auction that had quite an unusual collection of fish. Professor Morse, who had just arrived home from a one-month trip down the Amazon, was donating about two dozen fish and six new species of fish that he discovered while on his collecting trip.

When the auction started, the vice president of the club acted as auctioneer. The members paid top dollar, or should I say pounds, for the items being auctioned. When the six new species came up for auction, there were two in a bag. A hush fell over the room. As the "new" fish weren't catalogued yet, the professor gave them the name

"Cichaequi Morsiki." They were quite small, one and a half to two and a half inches, and light gray. There was a very attractive young lady who was bidding. She outbid the entire room and bought the first two bags of the new species. I was told that once she makes up her mind, that's it!

As the auction proceeded, I decided to try my luck and see if I could win a bag of fish to take home with me the next day. Eureka! I did it. I won the last bag of "new species" fish being auctioned. However, I was not sure how much I bid because I got mixed up with the exchange rate. Maybe that's why the others stopped bidding against me. I collected my winnings, bid some of the locals a fond adieu, and returned to my hotel.

The plane trip home was uneventful, and I did a lot of sleeping, as did my new acquisitions, who were snoozing in my knapsack.

Once home, I put the fish in a 20 gallon tank with some Swordtails. Within one day they



This article first appeared in the February 2005 issue of *Modern Aquarium*, Series III, Volume XII number 2.

were eating, which I took as a very good sign. The two fish looked the same, and on closer inspection with a magnifying glass, I noticed that the one fish, the darker gray one that I named Wanda, had a long body, a tall dorsal fin, a half-moon shaped tail, and very small paddle-like flippers. The fish would swim to the top of the tank and gulp in air like a *Corydoras*.

In September, my club had its first meeting of the season. By then, my London purchases looked great. One fish was two inches, and Wanda had grown to three and a half inches, and looked like a winner, so I decided to enter her in the "Bowl Show." To my chagrin, I was defeated, or I should say Wanda was. My friend Harry's killifish came in first place, a guppy won second place and a discus came in third. What can I say...I thought Wanda was going to be the big winner.

I was going on a business trip for about five days, and my good friend Mark, who is an aficionado on *Corydoras* and Catfish, told me he would drop by and feed my brood. When I got home, Mark told me Wanda would swim to the top of the tank and breathe in air. I personally thought he was pulling my leg, as I have never seen anything like that. The next day I watched Wanda, and I realized that Mark's observation was correct.

By November, Wanda had grown to six inches. Mark said there seemed to be no explanation for her rapid growth. He did say, however, since the fish was newly discovered, it would be wise to try and find out the origin of the species. At this time, I decided to transfer the fish to a fifty-five gallon tank.

Mark told me he has a good friend, Dennis Coopersmith, who is in charge of the fresh water fish at the Baltimore Aquarium. Dennis once came down to the club and gave a very illuminating talk on the fish of South America. Mark said he would get in touch with his friend and see if he could be of any help in getting information on the fish. Dennis was very helpful. He said he had a young assistant going for her doctorate in ichthyology, and he would set up a meeting and see if she could help us with our questions.

She arrived on a Wednesday afternoon. She was quite young, I would say about 26, and very attractive. Her name was Beth Polsky. She took some photos of Wanda, and conducted other tests. She told us the fish was a female. She was very impressed and amazed when the fish would come to the top of the tank, stick its head out of the water, and breathe in air. She spent about three hours studying the fish. She said she also worked with the staff from the Smithsonian on new species, and if anybody could find out the origin of the fish it would likely be them.

Beth was correct. I heard from the museum about one month later. They were very interested in discussing this fish. I arranged for Mark and I to travel to Washington, D.C. where we were to meet a Dr. Robert Reilly from The Smithsonian. As Dennis and Beth were familiar with Dr. Reilly, they attended the meeting as well. Dr. Reilly was head of the Department of Fishery. Mark and I were very impressed with his knowledge of all types of freshwater and marine life. Dr. Reilly was extremely excited, and felt we had the "find of the century" and that we should keep it quiet until we had the fish safely housed in a secure aquarium. Dr. Reilly, being the ultimate professional that he is, showed us complicated charts and very colorful photos. A great deal of it went over my head, and I hoped that Mark understood a great deal of what was being said and shown. Dr. Reilly's test showed that the fish was related to *Ichthyosaurus*, which was an *Ichthyosaur*, a marine reptile which lived in the early Jurassic period until the early Cretaceous period, roughly 206 to 140 million years ago. It was very large and had a tall dorsal fin, a half-mooned shaped tail, vertical caudal fins, paddle-like flippers and smooth skin. They had lungs and could breathe in air, and they gave birth to live young.

In my wildest dreams, I could never fathom anything like that. I thought I had a fish that just grew large. At that point, I figured I'd better have the Smithsonian send a report to Dr. Morse about their findings. I found out that when Dr. Morse heard from them, he was very excited and happy to hear the good news. He was now known as the person who discovered the so-called fish. Maybe the good doctor can find a male on his next trip down the Amazon. It would be a great discovery. Dr. Reilly's advice was to find a good home for the so-called fish. He was already in touch with a Dr. Freedman, who was in charge of the largest aquarium in California, and whom he knew quite well. They both agreed that California would be the right move. Mark, Beth, and Dennis also agreed. They all looked at me, and since I have trouble spelling ichthyologist, I agreed.

I didn't know the Baltimore Aquarium had a large van-type trailer for transporting small and large sea animals to different aquariums around the country. It was really something to see. They told me they could also transport aquatic birds, such as penguins. It was a sad, and also a happy day when the crew from the aquarium picked up Wanda. At this point she was a little over a foot long, and still growing. I realized I had something special, and I had no way of taking care of her.

I received a very nice letter from Dr. Freedman telling me all the plans they had for the

new arrival. They included a picture of the housing they were planning, and a plaque with my name on it. It made me feel special, but still no blue ribbon.

After a year, and needing a vacation, of course California was calling me. I had good friends in San Diego, and the new home of my London purchase wasn't too far, so I was westward bound. I spent a few days with friends, and then I contacted Dr. Freedman. He was very happy to hear from me and invited me to the aquarium. We arranged a meeting on Friday morning. The doctor couldn't have been nicer. He and a staff member showed me the workings of the aquarium. I was quite impressed, of course, with the main attraction: "The Great Discovery." They had built a large enclosure and I didn't recognize Wanda anymore. She had grown to three and a half feet. She would swim very fast, and also leave the water

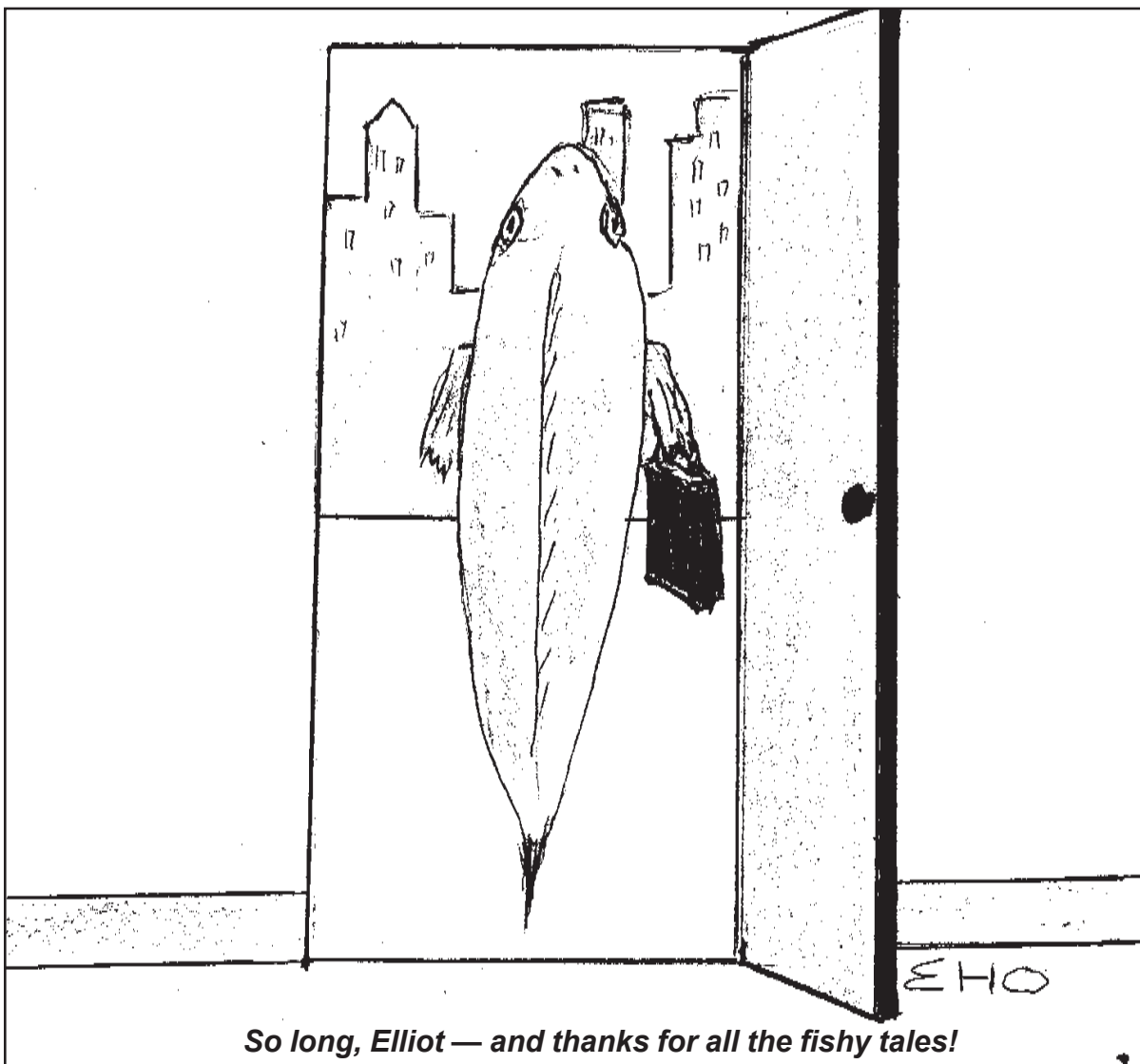
on her paddle-like flippers. After seeing this, I still couldn't believe I got beat out by a killifish. (Only kidding!)

I had a great feeling of exhilaration when the doctor told me to feed the fish. People looking in from the outside must have wondered who I was. As Andy Warhol said, "I was getting my fifteen minutes of fame." I had spent quite a long time with the doctor, and appreciated his kindness. As all good things must come to an end, I thanked the doctor and his assistant for all their generosity, and told them I would try and visit next year.

Flying home, I was thinking of the advice I would give to all my friends: Pay top dollar at an auction. You never know what you'll come home with the next time. It could be a fish called Wanda!!!!



Editor's Note: It should be remembered that Elliot has admitted to imbibing certain aquarium water conditioning agents, in his quest for the waters of "the Fountain of Youth." Consequently, neither Greater City nor Modern Aquarium will comment on the veracity of the above account.



So long, Elliot — and thanks for all the fishy tales!

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“The Origin of the Greater City Aquarium Society” by Joseph Ferdenzi.....	10/15
“A History of the Greater City Aquarium Society” by Joseph Ferdenzi.....	10/19
“ Mermaid Tales: <i>Fossochromis rostratus</i> ” Review by Sharon Barnett.....	11/12
“A Greater City Memoir” by Joseph Ferdenzi.....	11/13
WET LEAVES: “ The 100 Best Freshwater Nano Species ” Review by Susan Priest	05/15
“Ein? Swai? Tra? Basa?” by Dan Radebaugh.....	11/19
WET LEAVES: “ The Ocean At Home ” Review by Susan Priest	12/14

MARINE FISH & FISHKEEPING

“My Saltwater Odyssey” by Patricia Radebaugh.....	05/09
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MEMBER PHOTOS

“Pictures from Our Last Meeting” by Leonard Ramroop	03/08
“Pictures from Our Last Meeting” by Leonard Ramroop	04/06
“Pictures from Our Last Meeting” by Dan Radebaugh.....	05/08
“Pictures from Our Last Meeting” by Leonard Ramroop	06/09
“Pictures from Our Last Meeting” by Leonard Ramroop	07/08
“Pictures from Our Last Meeting” by Leonard Ramroop	08/08
“Pictures from Our Last Meeting” by Leonard Ramroop	09/06
“Pictures from Our Last Meeting” by Leonard Ramroop	10/06
“Pictures from Our Gala Dinner” by Joseph Gurrado	11/22
“Pictures from Our Last Meeting” by Bill Amely.....	12/10

NEC NEWS/EVENTS

“News From The NEC (HR 4521)”	03/20
“NEC Articles Competition Results”	06/08

PLANTS

“Friends Don’t Give Friends These (Diseases) Plants” by Justin Warnock & Gary Lange	10/11
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PUZZLES

“FIN FUN”

“Finding Nemo”	03/30
“One Hundred Years!”	04/24
“Find the <i>Neolamprologus</i> ”	05/28
“Tanganyika Tango”	06/30
“Clowning Around”	07/30
“Auction Action”	08/26
“All Tied Up”	09/28
“Beneath The Waves”	10/28
“Behind The Scenes”	11/30
“Back To The Future!”	12/26

SPEAKER TOPICS

Tonight’s Speaker: Scott Dowd: Project Piaba.....	03/09
Tonight’s Speaker: Rosario LaCorte: Images From A Lifetime of Fish Breeding	04/08
Tonight’s Speaker: Warren Feuer: Shell Dwelling Cichlids.....	05/06
Tonight’s Speaker: Enea Parimbelli: Voyage in Lake Tanganyika.....	06/06
Tonight’s Speaker: Joseph F. Gurrado: Reef Keeping.....	07/06
Tonight’s Speaker: Andreas Tanke: Plecos of the Rio Xingu.....	09/12
Tonight’s Speaker: Joseph Ferdenzi: History of the Greater City Aquarium Society.....	10/07
Tonight’s Speaker: Mark Denaro: Asia Aquatics 2022.....	11/17
Tonight’s Speaker: Mark Soberman: <i>Corydoras</i> Catfish.....	12/08

THE UNDERGRAVEL REPORTER - a column by *The Undergravel Reporter*

“Meet Methuselah”	03/29
“Joe Biden Is A Fossil!”	04/27
“It’s The Law!”	05/25
“Fisheye”	06/29
“The Largest Plant”	07/29
“The Cambodian Sting”	08/25
“Researchers Spot A Rare Dragonfish”	09/27
“Sounding Off”	10/27
“You Won’t Find This Lion at the Zoo”	11/29
“What in the Sea Is It?”	12/25



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! **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 2023! Hopefully we'll also get to see more of one another as we move through next year, also hopefully free of pandemics!

Overview of the Author Award Program

The GCAS AAP awards points for contributions to **Modern Aquarium**. 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**.

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.

2022 Totals	Art Work (in points)	Number of Articles		Awards	Total Points	Prize
Author	Photo/ Drawing (up to two per article)	500 Words 500 Words or Less	Over 500 Over 500 Words Or Caption Contest Winner	Bonus Points	Current Year Total March to December	Raffle Chances
Bill Amely			2		20	4
Jules Birnbaum	4	0	2		24	5
Geri Domingo	9				9	2
Joseph Ferdenzi	50	1	3	20	105	21
Jason Gold	0	0	3		30	6
Lonnie Goldman	19	0	0	1	20	4
Joseph Gurrado	19	0	0		19	4
Denver Lettman	0	0	0		45	9
Dan McKercher	9	4	2		49	10
Alexander A. Priest	50			N/A	N/A	N/A
Susan Priest			1	N/A	N/A	N/A
Dan Radebaugh	33	2	0	N/A	N/A	N/A
Marsha Radebaugh	4	0	1	0	1	0
Patricia Radebaugh	2	1			7	1
Leonard Ramroop	14	0			14	3
Steve Sagona	12			2	14	3
Donna Sica	1	0		0	1	0
Tom Warns	0	0	2	0	20	4
Ron Webb	4		0		4	0.8
J. Warnock & G. Lange	4	0	1		14	3

Joseph Ferdenzi is Author of the Year for 2022!



Northeast Council of Aquarium Societies

All Species MEGA Tropical Fish Auction 2023

Sunday, March 12, 2023
Registration: 10 AM
Auction Begins: 12 NOON

PLUS...

- VENDOR TABLES
- MANUFACTURERS' DONATIONS

Pre-Register Lots HERE:
auction.fish/auctions/nec-2023-auction/
- View pre-registered lots after March 1st
- Or register and bid the day of March 12th
- Fish, Plants, Working Equipment
(No Tanks, No Gravel)

SAVE THE DATE

GET THEE TO THE NEC AUCTION

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Bradley Intl. Airport
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Windsor, CT 06095

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GCAS 2022

Breeder Award Totals

Birnbaum, Jules

01/15/2022 <i>Poecilia wingei</i>	5 pts	Livebearer	South America
01/15/2022 <i>Neolamprologus similis</i>	15 pts	Cichlid	Africa
01/15/2022 <i>Lamprologus caudopunctatus</i>	15 pts	Cichlid	Africa
01/1/2022 <i>Poecilia reticulatus</i>	5 pts	Livebearer	South America
01/1/2022 <i>Lamprologus calliurus Magara</i>	15 pts	Cichlid	Africa
01/1/2022 <i>Lamprologus ornatipinnas Vigoma</i>	15 pts	Cichlid	Africa
06/1/2022 <i>Fundulopanchax oeseri</i>	15 pts	Killifish	Africa
02/1/2022 <i>Corydoras adolfoi</i>	10 pts	Catfish	South America
Total	95 pts		

Webb, Ron

44811 Super Red <i>Ancistrus</i>	20 pts	Catfish	South America
44673 <i>Pterophyllum scalare</i>	10 pts	Cichlid	South America
44576 <i>Corydoras aeneus</i>	10 pts	Catfish	South America
Total	40 pts		

Puleo, Daniel

44713 <i>Pterophyllum scalare</i>	10 pts	Cichlid	South America
Total	10 pts		

Burke, Martin

44594 <i>Pterophyllum scalare</i>	10 pts	Cichlid	South America
Total	10 pts		

Radebaugh, Dan

44621 <i>Ilyodon whitei</i>	10 pts	Goodeid	Central America
44650 <i>Girardus metallicus</i>	10 pts	Poeciliid	Cuba, Costa Rica
	20 pts		

Faustmann, Harry

44562 <i>Nothobranchius rachovi</i> Beira 98	20 pts	Killifish	Africa
44621 <i>Kryptolebias marmoratus</i>	20 pts	Killifish	Central America
44562 <i>Poecilia wingei</i>	5 pts	Livebearer	South America
44593 <i>Corydoras schultzi</i>	5 pts	Catfish	South America
44593 <i>Epiplatys dageti</i>	10 pts	Killifish	Africa
44593 <i>Aphyosemion bivattatum</i>	10 pts	Killifish	Africa
44621 <i>Xiphophorus maculatus</i>	10 pts	Livebearer	Central America
44652 <i>Corydoras aeneus</i> Albino	5 pts	Catfish	South America

85 pts



GCAS Past Award Winners

JOSEPH FERDENZI ROLL OF HONOR

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

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 Gutierrez	1994-95	Steve Sagona	2007-10	Jeffrey Bollbach
1986-87	Joe Ferdenzi	1995-96	Tom Miglio	2011-12, '16, '19-20	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	2017	Joe Ferdenzi
1991-92	Dominic Isla	2001-02	Alexander Priest		

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

1990-91	Diane & Harold Gottlieb	2006	Anton Vukich
1991-92	Doug Curtin & Don Curtin	2007	Ed Vukich
1992-93	Mark Soberman	2008	Al Grusell
1993-94	Warren Feuer	2009	Dan Radebaugh
1994-95	Steve Sagona	2010	Pete D'Orio
1995-96	Alexander & Susan Priest	2011	Jeffrey Bollbach
1996-97	Joe Ferdenzi	2012	Jules Birnbaum
1997-98	Claudia Dickinson	2013	Dan Puleo
1998-99	Vincent & Rosie Sileo	2014	Leonard Ramroop
1999-00	Pete D'Orio	2015	Alexander & Susan Priest
2000-01	Bernard Harrigan	2016	Elliot Oshins
2001-02	Joe Ferdenzi	2017	Joseph Gurrado
2001-02	Jason Kerner	2018	Dan Radebaugh
2002-03	Carlotti De Jager	2019	Marsha Radebaugh
2003-04	Jack Traub	2020	Jules Birnbaum
2004-05	Claudia Dickinson		

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 Coughaine	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, '16, '19	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	2020	Harry Faustmann
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)	2017-22	Horst Gerber (6)
1966-68	Charles Elzer (2)	1979-81	Don Sanford (2)		

Greater City Aquarium Society 2022 Awards

To be awarded March 1, 2023

GENE BAIOTTO AQUARIST OF THE YEAR AWARD

Jason Kerner

DON SANFORD BREEDER OF THE YEAR AWARD

Jules Birnbaum

WALTER HUBEL BOWL SHOW CHAMPION

John "Buzz" Buzzetti

JOSEPH FERDENZI ROLL OF HONOR

Pete d'Orio

AUTHOR AWARD PROGRAM (AAP) AWARDS

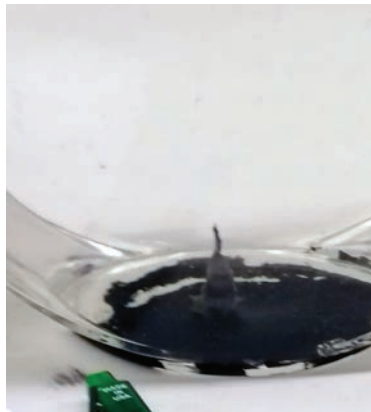
Greater City Authors who made contributions printed during 2022, or who received AAP points as a result of NEC publication awards announced in 2022 are: Dan Radebaugh, Abigail Weinberg, Jason Gold, Joseph Ferdenzi, Jules Birnbaum, Horst Gerber, and Dan McKercher.

CORRECTED November Bowl Show Winners

(Photos by Bill Amely)



1. John Buzzetti -- *F. gardneri*
(gold)



2. John Buzzetti -- *F. amieti*



3. Pete D'Orio -- Angelfish



GCAS Breeders' Award Entry Form



Name of Breeder _____

Fish Name (Latin) _____

Common Name (if any) _____

Date Spawned _____

Is Fish in CARES Program? _____

Date Free Swimming _____

Date Presented at Meeting _____

Photo? _____ **Video?** _____

At Least 6 60-Day Fry in Auction? _____

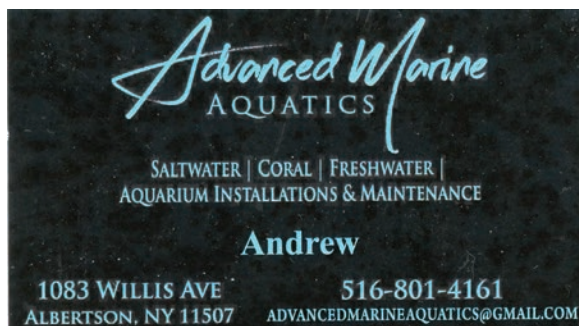
BAP Chair Signature _____

Program Use Only

 + =
Points for species + CARES = Total Points

Certificate # : _____

GCAS Member Discounts at Local Fish Shops



10% Discount on everything.



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



10% Discount on everything.



10% Discount on everything.



10% Discount on everything.



10% Discount on fish.



10% Discount on everything.



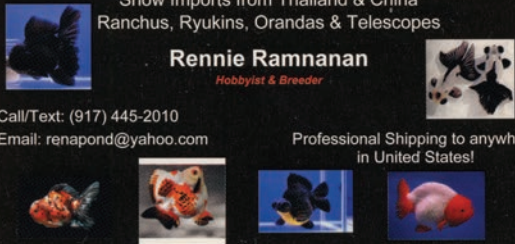
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2010

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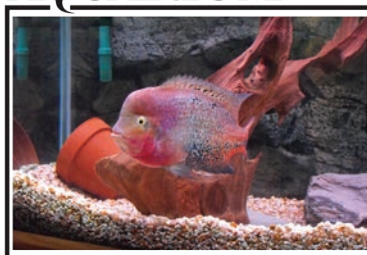
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September 2010
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number 7

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October 2010
volume XVII
number 8

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number 9

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AQUARIUM



December 2010
volume XVII
number 10

March 2010

Hypselecara temporalis

April 2010

Pseudotropheus polit

May 2010

Macropodus spechti

June 2010

Betta midas

July 2010

Felis catus

August 2010

Betta raja

September 2010

Betta splendens

October 2010

Paratheraps synspilus

November 2010

Xiphophorus montezumae

December 2010

Trichogaster trichopterus

by Linda Konst

by Mark Neufeld

by Alexander A. Priest

by Alexander A. Priest

by Marsha Radebaugh

by Alexander A. Priest

by Alexander A. Priest

by Marsha Radebaugh

by Joseph Ferdenzi

by Alexander A. Priest



A Fish Only A Mother Can Love

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

A famous Russian fisherman, Roman Fedortsov, has taken to posting pictures of his terrifying finds.

One post, in particular, has now caught people's attention: a video of a bizarre deep-sea creature with a bloated, puffy mouth and scary bulged-out eyes.

Mr. Fedortsov caught the weird-looking fish on his commercial boat in the Norwegian and Barents Seas. His outlandish catch was made on New Year's Day.

Internet users flooded the comment section with all kinds of reactions. While some called the fish simply weird, others compared it to celebrities with botched cosmetic procedures.

One user even explained, "Deep sea fish bloating [is] due to compression near the surface. It goes back to normal when it's back in the deep oceans, it's like when we go deep we feel the pressure. With this fish, it feels the pressure when it is reaching the surface."

"When the lip filler goes wrong," wrote one user. "Well, that's terrifying," said another. A third user commented, "The Kardashians saw that fish, called the surgeon and said: I wanna its lips!" while a fourth added, "Trout Pout".

The fish still remains unidentified, with Mr. Fedortsov being unsure of the species.

I remember hearing a past GCAS President say he never saw a fish he didn't love. How about this one, Joe?!?



Reference:

<https://www.ndtv.com/offbeat/video-of-bizarre-looking-deep-sea-fish-with-puffy-mouth-bulging-eyes-goes-viral-3676242>

Fin Fun

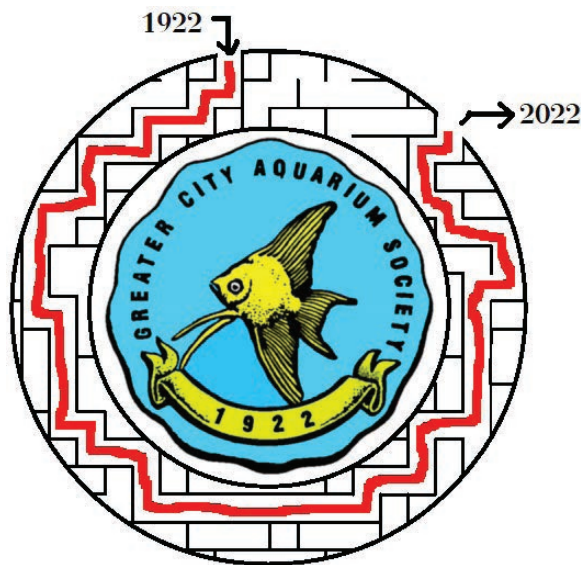
WATCHAMACALLIT

The aquarium hobby has many terms an aquarist should be familiar with. See if you can find all of the common aquarium terms on the right in the box below.

V	C	H	Y	H	E	R	B	I	V	O	R	E	G	C	A	C	Y
U	O	F	F	B	A	X	D	K	K	B	A	L	G	A	E	H	U
B	P	N	I	T	R	I	F	I	C	A	T	I	O	N	D	L	P
I	O	C	S	M	U	A	Q	U	A	R	I	U	M	A	I	O	I
O	W	V	H	R	P	B	L	W	B	R	Y	E	I	M	F	R	S
L	E	R	B	X	G	E	X	K	G	D	M	R	O	M	I	I	C
O	R	U	O	K	J	L	L	Q	A	R	H	S	F	O	L	N	I
A	H	L	W	O	Y	M	R	L	I	L	A	S	K	N	T	E	V
D	E	E	L	R	D	K	E	P	E	T	I	V	U	I	E	M	O
C	A	N	N	I	S	T	E	R	K	R	L	N	E	A	R	J	R
G	D	N	Q	U	A	R	A	N	T	I	N	E	E	L	O	E	E
H	E	A	T	E	R	U	N	M	N	Z	I	S	A	N	D	P	L

- AQUARIUM
- ALGAE
- ALKALINE
- AMMONIA
- BIOLOAD
- CANNISTER
- CHLORINE
- FILTER
- FISHBOWL
- GRAVEL
- HEATER
- HERBIVORE
- IMPELLER
- NITRIFICATION
- PISCIVORE
- POWERHEAD
- QUARANTINE
- SAND

Solution to our last puzzle: **BACK TO THE FUTURE!**





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