

modern AQUARIUM



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Greater City Aquarium Society - New York

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modern AQUARIUM

Series III Vol. XXX, No. 2 April, 2023

ON THE COVER

Our cover photo this month shows willow leaf buds sprouting in a home aquarium. For more information on how this works, see page 13 for Joe Ferdenzi's article on using native woods in a home aquarium. Photo by Joseph Ferdenzi

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In This Issue

From The Editor.....	2
G.C.A.S. 2023 Program Schedule.....	3
President's Message.....	4
Our Generous Sponsors and Advertisers.....	5
Fishy Friends' Photos.....	6
Tonight's Speaker: David Banks.....	7
Speaking on <i>Lake Tanganyika Cichlids & Appropriate Tankmates</i>	7
March's Caption Winner.....	7
Cartoon Caption Contest.....	8
by Denver Lettman.....	8
<i>Melanotaenia garylangei</i>	9
by Gary Lange.....	9
Ray (Kingfish) Lucas.....	10
Rest In Peace, Good Buddy!.....	10
by Joseph Ferdenzi.....	10
<i>Heros liberifer</i>	11
by Dan Radebaugh.....	11
New York Harbor's Marine Life.....	12
by Jules Birnbaum.....	12
Native Wood for the Home Aquarium.....	13
by Joseph Ferdenzi.....	13
French Angelfish of Aruba and Bonaire.....	15
MA Classics.....	15
by Stephen Sica.....	15
March Bowl Show Winners.....	16
<i>Stiphodon semone</i>	17
by Karen Murray.....	17
Potassium Permanganate (PP).....	19
by Dan McKercher.....	19
Pictures From Our Last Meeting.....	20
Bowl Show Rules.....	21
G.C.A.S. Member Discounts.....	22
Modern Aquarium Covers 2011.....	24
MA Classics.....	24
The Undergravel Reporter.....	25
マーメイド (Japanese For Mermaid).....	25
Fin Fun (Puzzle Page).....	26
Tasty Treats!	

From the Editor

by Dan Radebaugh

Well, I must say it seems a little weird to me being here on Thursday rather than Wednesday. Who knows what might happen to our precious bodily fluids as a result? How many here tonight recall that tidbit from the past? But then most of us here are quite sufficiently engaged in maintaining proper fluid balance in our fish tanks.

I must compliment our authors for the diversity of this month's stories. Gary Lange introduces us to a beautiful rainbowfish named in his honor — *Melanotaenia garylangei*, which hails from New Guinea.

Jules Birnbaum gives us an overview of the current status of New York Harbor's wildlife, and Joe Ferdenzi tells us how and why he likes to use native wood in his aquaria, and I provide a brief introduction to the not-so-well-known mouthbrooder *Heros liberifer*.

Joe Ferdenzi also gives us the sad news of the passing of fish hobby giant Ray "Kingfish" Lucas, along with a link to further information about this stalwart of our hobby.

Our MA Classic article this month is Steve Sica's "French Angelfish of Aruba and Bonaire," while our guest reprint article, by Karen Murray, is on the freshwater goby *Stiphodon semoni*. This article first appeared in the March, 2019 issue of the Kitchener-Waterloo Aquarium Society's **Fins and Tales**.

We also have an article from frequent MA contributor Dan McKercher. See



"Potassium Permanganate "PP"" on page 19.

You'll find "Pictures From Our Last Meeting" on page 20 along with the results of last month's bowl show. Our historical survey of **Modern Aquarium** covers continues this month with covers from 2011, and of course the issue ends with The Undergravel Reporter and the Fin Fun puzzle. Good luck!



We still have a few of these GCAS long-sleeve T-shirts available, large and extra large, at the bargain price of \$20 each! They'll be available at our April meeting on THURSDAY, April 6!



GCAS Programs

2023

March 1	Tom Keegan <i>Fish Biology 101, Part 1</i>
April 6 (Thursday!)	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. 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

For those of you who have been around for a while, Welcome Back, Kotter! For those who do not recall ancient TV shows quite so well, Welcome Back, Greater City! I can only say, Wow! What a beginning for 2023!

We had almost a full house, and I am not talking about poker! It was close to pre-pandemic meetings! I'd even say that the auction was back to the old standards. The raffle—what can I say? There were quite a few high-priced items. My wallet somehow came out and threw a few crisp \$20 bills on the table! Hey, you never know!

And what can I say about the auction? We must have had well over 50 items, with quite an assortment of plants and fish! Thank you to all who donated! Lots of you re-upped your membership fees, too! It warms my heart to see that kind of turnout.

I'm starting to get even older than I already am, so candidates for the Presidency are needed. Believe me, if I can do this job, you can too! I, as well as former Presidents Joe F. and Dan R. will be around for you to pick our brains should you feel you need advice. It's a piece of cake! Or maybe special brownies...

Spring is the season when the snow melts away and the trees and flowers bloom. No melting snow, because we had no snow. That little bit we had melted right away, but the flowers are out early—even the trees are confused and budding early. It's also the time for spring cleaning, so start doing those water changes you've been neglecting over the long winter months! I can't think of a better time than now to refresh your tanks with new plants, as well as those fish on your bucket lists!

From what I've seen of it, this is a really fun and diverse issue. All we need to do is be sure these wonderful articles keep coming in, so that we all can enjoy them and learn from them. So think about it—what can you tell us about those interesting new fish that you've been working with? Write something about them! We don't get out much these days. We'd love to see your stories about what you've been working with recently!

Last but not least, did you see our new logo? Sorry, there isn't one. Just checking to see if you're paying attention. Spring is our time to refresh. I hope that as you turn the pages of this issue, you will get as much inspiration as I did when I looked over the proofing copies!

Excelsior!

Horst





GCAS Thanks You!

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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!



Joseph Gurrado



Lonnie Goldman



Marsha Radebaugh



Nathan Justa



Gilberto Soriano



Wallace Tao



Sandy Sorowitz



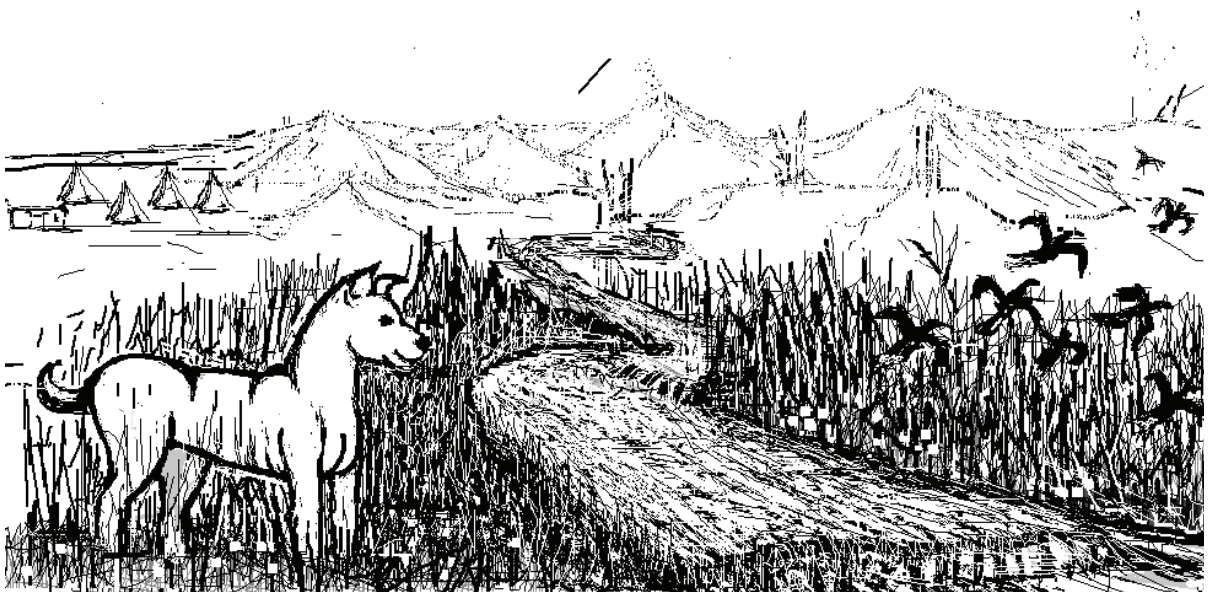
Tonight's Speaker: April 6, 2023

David Banks, Speaking on Lake Tanganyika Cichlids and Appropriate Tankmates

David is the past president of the Tropical Fish Club of Burlington, and co-founded the club in 1989 with his wife Janine. David is also past president of the Northeast Council of Aquarium Societies and still holds several positions within that organization. He first joined the ACA in 1986, and has attended several conventions over the years. He has been an active breeder of tropical fish for over 25 years, at one time concentrating mainly on Africans. David is also involved in conservation, and has always kept space in his tanks for several endangered species, ranging from Lake Victorian cichlids to livebearers and killifish. His presentation will cover an overview of cichlids from Lake Malawi, Tanganyika and Victoria. Other fish that can be kept with these cichlids will be introduced, and the breeding of both the cichlids and their tankmates will be covered. David also makes videos that he shares on YouTube as **All Natural Aquatics**.



March's Caption Winner: Ron Webb

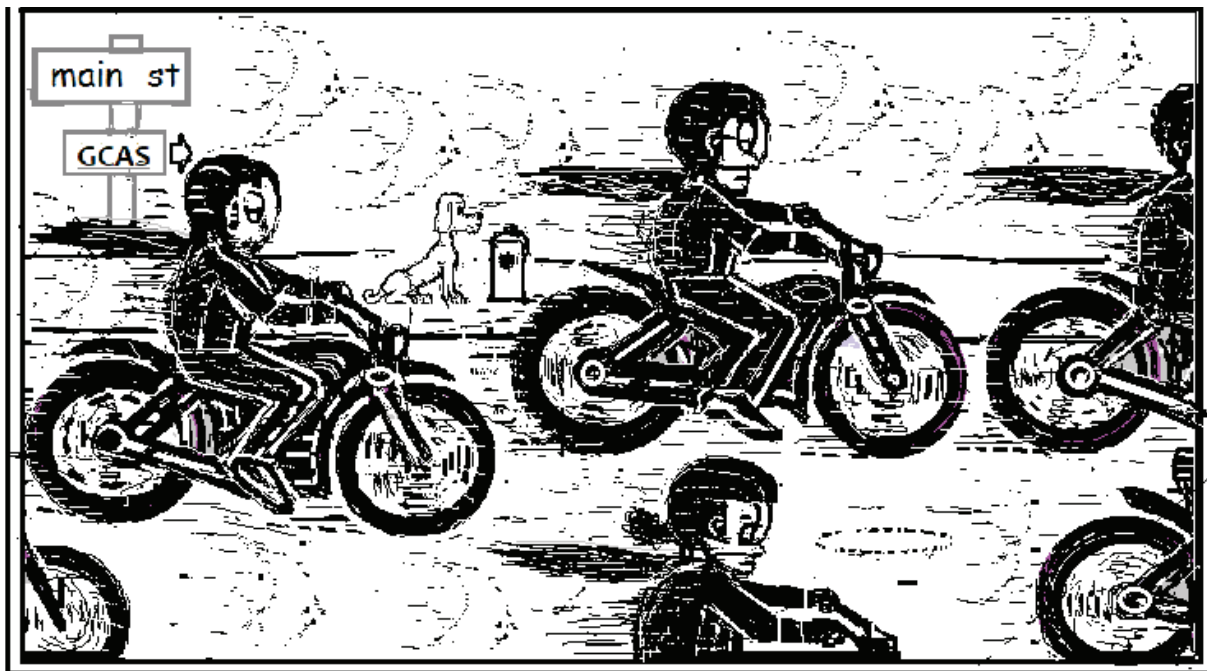


I told those “gullible” birds that there were piranhas in the stream!

The Modern Aquarium Cartoon Caption Contest

Cartoon by Denver Lettman

*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:



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

Melanotaenia garylangei

by Gary Lange



Melanotaenia garylangei

We collected this fish on our third trip to Papua, New Guinea (Indonesia) in 2010. We flew into the relatively new town of Dekai. Unlike most older villages, it was laid out in a grid, but in the middle of the jungle, with no roads connecting it to other villages or towns.

The road to the east and more new river systems looked very inviting, but none of the bridges over the big rivers was finished. So we were only able to scout a few of the smaller streams and rivers near the town. We found lightly tannin stained streams that were quite cool (~72F), so that you couldn't stay in too long without getting a chill. In that stream we found *Melanotaenia* cf "goldiei".

In a very tannin-stained, muddy and slow flowing stream we found a new *Pseudomugil* as well as this



Dekai close-up

new rainbowfish (above) which later was named in my honor, *Melanotaenia garylangei*. They get to about three inches. Like most rainbowfish they are very easy to care for. A school of six will fit into a two foot tank, but you will have a better display with ten or more in a three foot planted tank. They will eat flake food, but will readily breed when fed live foods and meaty frozen foods such as frozen brine shrimp and bloodworms.

They thrive in temperatures between about 74-80F. Perform quality water changes for them and they will provide you with lots of enjoyment and fry!



Dekai, New Guinea

Modern Aquarium - Greater City A.S (NY)

April 2023



Ray “Kingfish” Lucas

Rest in Peace, Good Buddy!

by Joseph Ferdenzi

Our world lost a titan on February 23, 2023, when Ray “Kingfish” Lucas passed away. Born in 1947, few people in our hobby were as memorable a personality as Ray, or as big a hobby promoter. On top of that, he was a good friend to me and many others. The void he leaves will never be filled. He was a true one-of-a-kind.

In the late 1980s Ray came up with the ingenious idea to make himself available as a spokesperson for a variety of aquarium products companies. He would then travel all over the USA and Canada and set up a huge display of their products. People attending these events would then be able to see all the products first-hand and have their questions answered by Ray, who was always friendly and charming. Then, at the end of the event, the products would be donated to the charity auction that was usually held on the last day of the event. And, these auctions were always headlined by Ray, who would get the auction off to an exciting start.

And so it was that in 1997, when Greater City was celebrating its 75th year of existence with its Diamond



Ray's ad in our 1997 show journal.

Jubilee Show at the Marriott La Guardia Hotel, Ray came with his “show” and helped us make our Diamond Jubilee the success that it was. He did the same for our 2000 and 2002 shows held at the Queens Farm Museum.

In addition to these events I would always see Ray at other area shows and conventions. He was always one of the main attractions, and I always looked forward to seeing him. He would greet me with a great hug, and then if time permitted, we would talk about many things: our mutual friends, family, the history of the hobby, food, the future of our hobby, what was new in aquarium products, and so on. On several occasions Ray had dinner at my home, and I could delight in having Ray all to myself!

One of the stellar events that Ray orchestrated was “An Evening With the Aquarium Legends” that



Ray starting the auction at the Diamond Jubilee.

was part of the 2006 Northeast Council of Aquarium Societies Convention. What can I say? Ray constantly came up with great ideas to promote our hobby. By the way, the aforementioned legends were Alan Fletcher, Al Klee, Rosario La Corte, Gene Lucas (no relation), Earl Schneider, and Stan Weitzman.

When the Aquarium Federation of Independent Societies and Hobbyists organized the 2007 and 2008 conventions on Long Island, Ray was there in his usual hobby supporter role. Those events would not have succeeded without him. Indeed, at the first one in 2007 Ray was presented with one of only three awards of merit given at the

event's Saturday night banquet. My treasured photo of me presenting that award to Ray was autographed by him with “Best Friend, Kingfish.”

In 2014, after decades of travelling and being away from his family, Ray decided it was time to retire his road show. It was a well-earned rest—more time to spend with his wife Diane and their children and grandkids, and more time for his lovely home in upstate New York, with its magnificent ornamental fish ponds.



Ray with another legend, Rosario LaCorte (on right), at our 1997 show.

Ray continued his dedication to the hobby by appearing on radio and in podcasts, as well as on the Internet's social media platforms. Of course for most of us that would never replace the joy of being with him in person. And now, with his passing, we will all have to experience the joy of Ray through many wonderful memories. For more, click on link below.

https://www.tfhdigital.com/tfh/march_2015?article_&pg=91#pg91



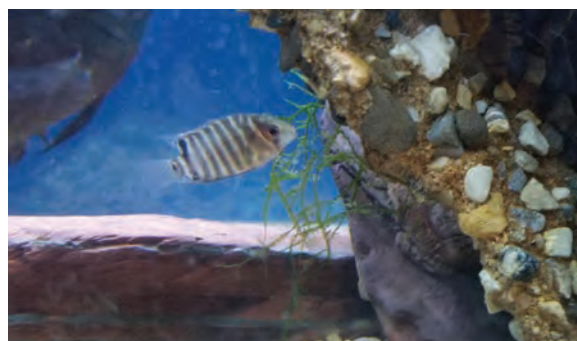
Heros liberifer

Text and Photos by Dan Radebaugh



Up until 2014 *H. liberifer* was incorrectly believed to be the previously defined *H. severus* by Heckel in 1840. *Heros severus* can be differentiated by having a partially formed band unlike other *Heros* as well as having red shoulders. This band was originally defined by Heckel, but was dismissed as an anomaly by Kullander (1986). With the finding of the true *H. severus*, Staek & Shindler officially classified the *liberifer* so as to make room for the true *H. severus*. By the way, these days I find that any online search for *H. severus* is more likely to bring me to **Harry Potter** than to any fish.

Delayed, biparental mouthbrooders, *H. liberifer* lay their adhesive eggs on a substrate and guard the eggs until they hatch. At that time the female takes the newly hatched fry into her mouth. She will not release them until they become free swimming. Past that first release point, both parents “mouthbrood” the young,



sharing the responsibilities. This allows the parents to keep feeding. *H. liberifer* can be distinguished from other *Heros* species by the small spots that form horizontal lines across the lower half of the body. Other traits are a caudal spot in adults, as well as generally narrower lips than other species.

H. liberifer is native to lentic (still waters) habitats, especially flooded forests, in the upper and middle Orinoco basin in South America.

Compared to other severums I have kept, I would have to say that these are rather shy and really appreciate hideouts. Also, if you have more than one male in the tank there will be shredded fins, so have a plan. If there are other fish in the tank of a size that could eat the fry, the parents are likely to panic and eat the fry themselves, so I suggest not tempting fate. Even in a tank with no other fish the parents will occasionally squabble, so you’re still likely to see some wounds from time to time. Unlike other *Heros* I have kept, these are not so glad to see me when I approach the tank; they’re more likely to head for their hideouts.



Scientific classification

Kingdom:	<u>Animalia</u>
Phylum:	<u>Chordata</u>
Class:	<u>Actinopterygii</u>
Order:	<u>Cichliformes</u>
Family:	<u>Cichlidae</u>
Genus:	<u><i>Heros</i></u>
Species:	<u><i>H. liberifer</i></u>

NEW YORK HARBOR'S MARINE LIFE

by Jules Birnbaum

On Friday January 6th, 2023 the **New York Times** published an article titled, “New York Harbor Now Teems With Life.” It was written by John Waldman, professor of biology at Queens College. I give him the credit for his research. I am just the reporter. This article is a follow-up to an article I recently wrote for **Modern Aquarium**.

Fifty years ago the harbor was heavily polluted by raw sewage that was being dumped into the Hudson River. Then the Clean Water Act was passed by Congress over President Richard Nixon's veto. Fifty years later you still should not eat fish taken from the harbor.

However, the harbor has significantly recovered thanks to the law.

According to the **New York Times**, the following marine life has come back to the harbor:

The American oyster—once covered miles of the harbor bottom. Now the population has begun to recover. The nonprofit Billion Oyster Project is working to restore the oyster reefs.

The Alewife—the small freshwater/marine herring species is important prey fish. Dams have blocked its breeding grounds, but some dams are being removed, which should help to increase the herring's population.

The Bald Eagle—the eagle has made a strong recovery. The now banned pesticide DDT weakened their egg shells. This had hindered

their ability to reproduce. The eagle has taken advantage of the increase in the harbor's fish life. At least 10 live on Staten Island, including a nesting pair that have been named Vito and Linda.

The Humpback Whale—Due to the increase in the menhaden population whales have been spotted in the Hudson estuary; one was even seen only a mile from Times Square. My son, who sails his sailboat around NY's waters, recently spotted whales and porpoises.

The Harbor Heron—Heron and egrets once nested all around the harbor.

Demand for their

plumage, which was used for woman's hats in the late 19th century, exacerbated by sewage pollution of their food sources, cut their population. The heron and egret populations are now increasing, with many breeding pairs being observed.

The Atlantic Sturgeon—An ancient fish from some 200 million years ago, it was long killed for its caviar. In 2018 sonar detected a 14-footer in the Hudson River.

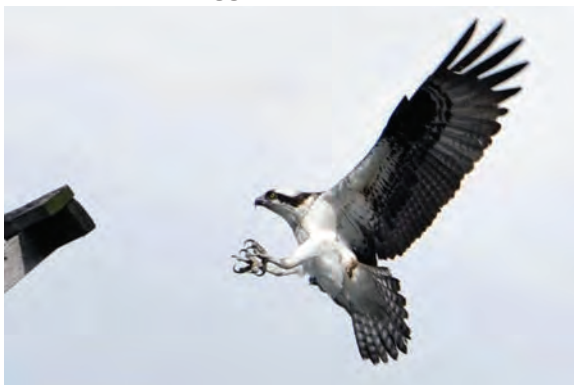
Marine Borers—Wood eaters are back. Not good news for piers, wood pilings and wooden boats. The most common of these is *Teredo navalis*, which attaches its shell to the wood to drill holes, and then gets into the wood.

The Osprey—A bird of prey, also known as a fish hawk, is seen all over the Metro area. We have seen a nest less than a mile from our house, on a cell tower near the Long Island Sound. The absence of DDT and other pollutants has helped provide the uncontaminated food sources the Osprey need. My son has taken some great pictures of them in flight.

I give credit to the Clean Water Act for the resurgence of New York City Harbor's marine life.



Vito and Linda



Photos by David Birnbaum



Native Wood for the Home Aquarium

Text and Photos by Joseph Ferdenzi

There are many kinds of wood that are not suitable for your home aquarium. There are many that are, but this article is about only two such woods: birch and willow. Birch and willow trees are very common throughout the United States, and certainly in our northeast region. Additionally, there are many kinds of birch and willow trees, but for the purposes of this article I am going to discuss them as a group.

The important point is that birch and willow branches are safe to use in your aquariums. This should not be surprising, inasmuch as both birch and willow trees are fond of water, and are often seen growing near streams, lakes, and other freshwater habitats. Indeed, willow tree roots can often be seen extending into the water itself.

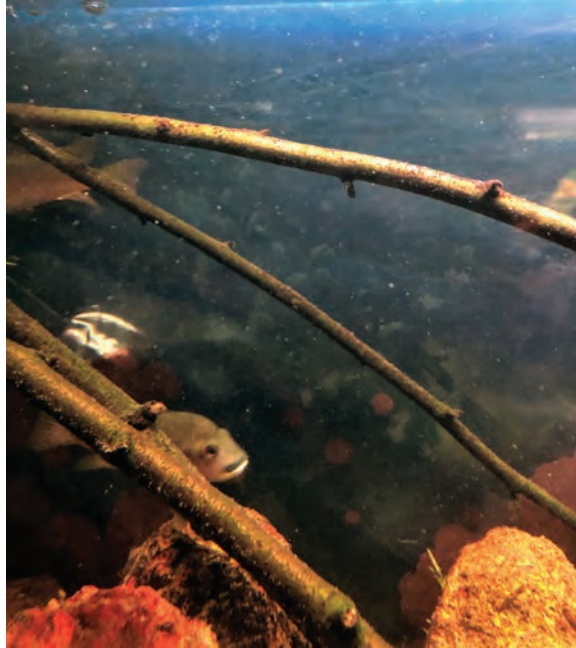
Another point is that because they are such common trees it is very easy to gather their

branches. Now please take note: I am not talking about large, thick branches, and I am certainly not advising you to go around cutting branches from

these trees. For one, large branches are not suitable for most aquariums. For another, cut branches have an unnatural look where the cut had been made, and lastly, there is no need, because both birch and willow trees “drop” branches profusely in any kind of windy or stormy weather.

On my property I have several birch trees. I can pick up branches constantly. My neighbor has a weeping willow, and branches from that tree also frequently drop on my property. These branches are all slender and light—they never cause any property damage.

Over the years I’ve discovered that they make for beautiful natural aquarium décor. The bark of my birch trees has a beautiful mahogany-colored grain. You can use them as you find them—with



Birch branches in an African cichlid aquarium



Birch branches in a swordtail tank



Close-up of birch branch



Willow twig freshly placed in aquarium

many slender branches emanating from the main branch—or you can break off the small branchlets and just use the main stem. (Note: don't use implements to make cuts—not necessary and unnatural looking.) These branches will of course float at first. So the trick is to position them in your tank so that they are wedged between a back corner of your tank and your front corner or some other object such as a large stone. It is also possible to place a rock on top of part of the branch. These slender branches are not very buoyant, so it is not very hard to do and you don't need very large rocks.

The aquascaping possibilities of birch branches are endless. Each branch is unique, so using more than one doesn't have that "man-made" look to it. Nor do they discolor your water. Lastly, even the slender branches will last in your aquarium for years. They are truly amazing, and they are free!

Willow branches are also amazing, but I use them less, and in a different way. While I completely submerge birch branches, I only do it with the bottom half of willow branches. I do this because I enjoy seeing the willow branches "sprout" in the aquarium. Yes, they grow roots and leaves in your home tank.

Naturally, this means that for willow branches you have to have some space between the waterline and



Growth of leaf buds after about 2 weeks

and the top of your tank. You also need something to support the stem, so that the part that has leaf buds are above the water. Of course you also need good lighting above the branch. If you can supply these simple requirements you will have a remarkable piece of nature growing in your aquarium gratis!

In my fishroom I have a willow branch growing in one of my tanks that has a dense growth of Water Sprite. Because Water Sprite is a floating plant with aerial leaves I leave at least three inches of space between the water line and the top of the tanks. I jab the willow branch into this dense growth, and it is held up to the light. Within a few weeks you will see roots developing all along the bottom of the branch, and even more strikingly, beautiful green leaves sprouting along the top of the branch that is not under water.

It remains to be seen how long a miniature willow "tree" will last, but even if it does not last as long as the birch branches, new willow branches are easily obtained, and a new "tree" thereby started in your aquarium. The accompanying photos should illustrate just how a "tree" grows.

I use many kinds of wood in my aquariums. Most are purchased from reputable aquarium stores. They do not, however, sell birch and willow branches. Nature provides them. Happily, these branches are discarded by the tree, so that you are not only not damaging any tree, but actually recycling a product that would otherwise probably end up in the dump.

Lastly, a word of caution: Never use any piece of wood unless you are 100% sure it is safe for your aquarium. But assuming you know what birch and willow trees look like, their branches are safe.



Roots growing from bottom of willow branch



Significant leaf growth after about a month



FRENCH ANGELFISH

of

ARUBA and BONAIRE

by Stephen Sica

Last March Donna suggested a cruise for our spring break vacation. The ship was leaving from San Juan, and scheduled to visit St. Thomas, St. Kitts, Grenada, Bonaire, and Aruba with only one day at sea returning to Puerto Rico. I didn't care to fly to San Juan to catch a ship, but I did like that itinerary, plus we had never been to St. Kitts. We had just read that this island was home to a shallow shipwreck at a depth of only 45 feet that was the island's signature dive.



French Angel on Reef

We did the cruise at the end of April into May. A few weeks later, while I was editing my underwater photos from dives in St. Kitts, Bonaire, and Aruba, I noticed that I had a few good ones of French angelfish, *Pomacanthus paru*. As a result, I decided to prepare a brief photo essay of these attractive fish. Here are some brief facts: their maximum size is 18 inches, and they populate to an average depth of 80 feet, although I have seen adults on shipwrecks below 100 feet. Juveniles have yellow vertical bands and no spots on their flanks. As they mature, the bands disappear and yellow vertical notch-like speckles cover both sides of their body. As a rule, juveniles mostly stay in the shallows. I can't recall seeing young French angels in deep water. Adults are often found in pairs, and I have seen this on numerous occasions. Experts claim that they clean parasites from larger fish but I have never observed this behavior. My experience with these fish is always positive. They rarely shy away from divers unless you chase after one to photograph it, which I try not to do. A healthy reef or sizeable wreck has more than one angelfish to photograph. Usually they ignore divers because they are busy searching for food, and

nibbling on hard and soft corals.

My photography equipment is basic. It consists of a 7.1 megapixel Canon Powershot SD 800 IS digital Elph camera with a wide angle (28mm equivalent) lens. It's a subcompact point-and-shoot camera. I contain the camera in a Canon underwater case manufactured for this specific camera. I also use a compact Sea & Sea YS-25 underwater strobe, manufactured for use with many generic compact digital cameras. When the camera's shutter is released and its internal electronic strobe flashes, the YS-25 external strobe senses this and also flashes in synch with the camera. The effective underwater camera and flash range is about six feet. Less is better. The negative effect of flash is that it reflects back every particle in the water unless the strobe is properly angled or, an easier solution, that the ocean conditions are calm with crystal clear visibility.

All photographs accompanying this article were shot in Bonaire and Aruba except for any photos of the French angelfish's intermediate phase, as its yellow stripes begin fading and its yellow body speckles start



French Angel – Intermediate

to gain prominence. The intermediate phase angelfish were photographed near the anchor chain of a 144-foot inter-island freighter, the M.V. River Taw, that sank during the 1980s just offshore in St. Kitts. These fish were living at a depth just under 40 feet.

All other photos were taken on a wall and reef dive at Klein Bonaire, a small deserted island about a quarter mile off Bonaire. The wall fell to depths below 100 feet, but the angelfish were at a depth of

This article is reprinted from the August, 2008 issue of *Modern Aquarium*.

sixty feet and less. In Aruba I found several fish on the historic wreck of the Antilla, a U-boat supply ship that was scuttled within sight of the beach the day after Germany invaded Holland during World War II. The



French Angel feeding on Antilla

Dutch authorities told the captain that his ship was being seized, but he talked them into waiting until the next morning. That night he scuttled his ship. The

inverted angelfish were nibbling corals on the hull of the Antilla. Part of the hull has collapsed with a concave effect, causing the fish to swim upside down to feed. The wreck was at a depth of 60 feet. The angelfish on this wreck were found around the hull no deeper than 50 feet. This is also Aruba's signature dive and incredibly exciting, especially when the divemaster led us through an enormous part of the hull that was still intact. The insides were in total darkness as we swam single file. All sorts of fish, including large groupers, as well as green moray eels and lobsters were sneering at us from the shadows.



March Bowl Show Winners

(Photos by Dan Radebaugh)



(*Fundulopanchax gardneri*)
John Buzzetti — 1st Place



(*Betta splendens*)
Richard Waizman — 2nd Place



Stiphodon semoni

Text and Photos by Karen Murray



This article is reprinted from the March, 2019 issue of the Kitchener-Waterloo Aquarium Society's *Fins and Tales*.

The Freshwater Cobalt Blue Goby is found in fast moving coastal streams in Indonesia. They tend to inhabit high altitude areas above waterfalls that are upstream of seawater inlets. Sicyopus gobies, niritidae snails and Macrobrachium spp. shrimp are generally found in the vicinity.

Substrate is generally a bedrock of rocks and boulders with very little vegetation present, though leaf litter will exist they do not live in a tannin rich environment. The clear water combined with high flow oxygenated water helps to create a carpet of algae, bio film & small invertebrates for these fish to graze on. Cool water of about 72F/22C is ideal. They must have green and diatom algae (not hair algae) in their diet. They are not picky about pH or Hardness. I use no heater and have them in about 250 TDS.

I don't check my pH, but I assume it is around 7.8. They grow to about 2" with the females being quite a bit beefier than the males. The males are known to be territorial, but so far for me, the females

seem to dominate the tank and are always busy pumping and hopping around the tank. They do not swim in the traditional sense.

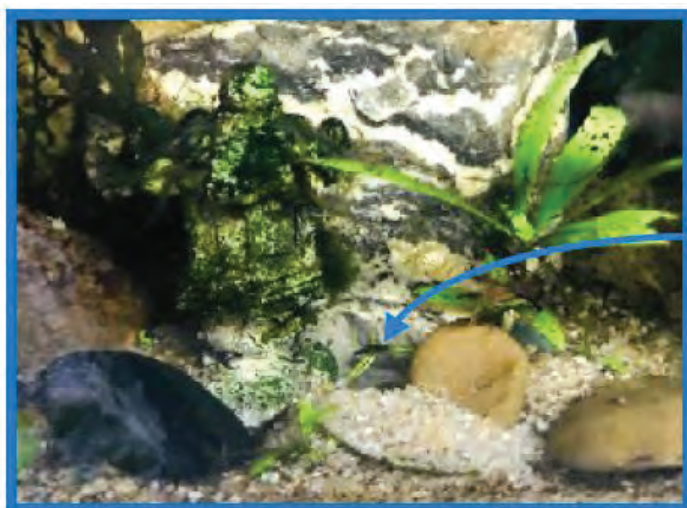
The male entices the female into a cave he has constructed and they spawn—up to 10,000 minuscule eggs—until they hatch as larvae in about 24 hours. The male watches over them until they drift down the stream and into the saltwater inlets. In a few months the larvae head back toward freshwater, prompting them to slowly change into the same form as the adults. They laboriously work their way upstream, sometimes traversing rocks, to the top of waterfalls. As you can guess, a comparatively few survive to this stage.

According to my research all *Stiphodon semoni* are wild caught, as no one has successfully bred them in captivity. This is too bad, because their movements and behaviours are quite entertaining. They are fairly peaceful, but I removed my hillstream loaches from this tank because they were not impressed with them.



I got mine at the PRAC fall auction. They were quite small and thin, so much so that I thought they might not survive. I put them in quarantine. It didn't take long for me to fatten them up on brine shrimp and algae pellets.

My biggest female has claimed the tiny cave (left) as her own. There was a male burrowed under it a couple of days ago. Apparently they burrow a tiny hole and expect the female to follow them in. Since he is about 1/3rd her size, she is having nothing to do with it. She can often be seen sitting on it, around it, or in it as she is here.



There are suddenly little holes all over the aquarium. They dig holes under the rocks, but the males never stay in the same hole. Apparently you should be careful to push the rocks down into the substrate so the rocks don't collapse on them. I have a powerhead shoved into an open cell sponge for a filter. This provides them with plenty of flow and some microfilm to snack on.

I do have some plants in the tank, though this is not normal for their habitat. I have the tank in the window, hoping to create some green algae. It has been about six months, and I have only a little on the back of the glass, so I purchased a stronger light and have increased my photoperiod. Now I have some green hair algae, which I find attractive, but they don't care to eat it. The tops of my rocks are turning black, but it is my understanding they don't eat black algae either. My kingdom for those beautiful green covered rocks!



I love the way these fish pump and hover in the water. They lift their heads up with their pectoral fins and perch like a bird. They sort of remind me of awkward hummingbirds. They can also be found stuck to the glass, and enjoy perching on the top of the rocks just out of the heavy flow. Like many other 'river fish,' they like a good water flow but don't necessarily like to be directly *in* it.



Potassium Permanganate “PP”

by Dan McKercher

This is some amazing stuff that every fishroom should have, along with salt of course. It has many uses. I’m not talking about that little bottle you get at the pet shop. One of those is called Clear Water by Jungle.

PP helps to kill off snail eggs and other unwanted things on aquarium plants. Disinfecting the tank and everything in it, it helps to cure fin rot, anchor worms and a whole host of other nuisances in the aquarium. It has a side effect of clearing water. Like that would be a bad thing. It is used in the fish farming industry because it is known to control fish diseases and parasites, and it detoxifies poisons while relieving oxygen depletion in fish ponds.

There are downsides to PP. It is a strong oxidizer, and will kill just about everything, yourself included, if not used properly.

I’ve successfully used PP to slow the production of snails in my tanks. It goes after the snail eggs. I find it better to use when tearing down a tank and you want to keep the plants but not the snails. Make a bath to soak the plants in for some time to destroy the snail eggs. I won’t get into mixtures or concentration here, as there is lots of info on the internet as to what strength to use in different cases.



Concentrated Potassium Permanganate solution



A 1 in 10,000 dilution of Potassium Permanganate ready to use.

PP can be purchased in a granular form online like anything else you can get on Amazon.com. A little goes a LONG way. A 100 gram bottle may last a lifetime! Just a touch on the end of a wet eyedropper will turn a 2.5 gallon tank really purple!

Potassium permanganate must **never** be taken internally, as it is highly toxic! Do not eat or drink when handling this product. Note that potassium permanganate may leave a brown stain on skin and nails as well as clothing. Use nail varnish or apply soft paraffin to fingernails and toenails before treatment. Potassium permanganate can also stain the bath or vessel holding the solution, and ceramic sanitary ware; a consideration when disposing of the solution.

Thanks for reading, and remember, if it holds water put a fish in it!



Photos from Dermnet

Pictures From Our Last Meeting

Photos by Leonard Ramroop unless otherwise noted



President Horst Gerber presents Jason Kerner with his well-deserved plaque for the Gene Baiocco Aquarist of the Year!



President Horst Gerber likewise presents Pete d'Orio with his plaque for being added to the Joseph Ferdenzi Roll of Honor!



John "Buzz" Buzzetti receives the 2022 the Walter Huber Bowl Show Trophy.

Photo by Ron Webb



Jules Birnbaum could not make the meeting because of illness, so he received his plaque at home!

Photo by Tony Siano



Tom Keegan starts off this year with a terrific presentation!



The crowd seems to like what they're hearing in Tom's talk!



Jason back at his post, coordinating all of the input we have to keep up with these days!



Some of the goodies for the auction!





BOWL SHOW RULES

There is a Bowl Show at every GCAS meeting, except our Night at the Auction/ Fleamarket meeting and our Holiday Party and Awards Banquet meeting. Bowl shows are open to all members of GCAS. Rules are as follows:

- Only current GCAS members may enter fish in the Bowl Show.
- There is a limit of 2 entries per member per meeting.
- Unlike some other clubs, every month is an “open” Bowl Show at the GCAS (i.e., there is no “theme,” such as that one month cichlids are judged, the next livebearers, the next anabantoids, etc.).
- Any fish that wins any prize (1st, 2nd, or 3rd) may not be entered again in the same meeting year.
- 2.5 gallon containers are available for use (brought to the meetings by the Bowl Show Coordinator), but entrants are responsible for providing enough (and suitable) water for their fish.
- For a fish too large (or too small) for those containers, entrants must supply a suitable container, which must be clear on at least three sides.
- Only one fish per container (i.e., no “pairs”).
- No plants, ornaments, or equipment (filters, airstone, etc.) are allowed in the judging tank (an external mirror, or opaque cards between containers is acceptable, as is a cover that does not obstruct side viewing).
- Points are awarded: 5 points for 1st Place, 3 for 2nd Place, and 1 for 3rd Place.
- Ribbons are awarded: blue for 1st Place, red for 2nd Place, and green for 3rd Place.
- The person with the most points at the end of the meeting season receives the Walter Hubel Bowl Show Champion trophy at the Awards Banquet.
- The decision of the judge(s) is final.
- A running UNOFFICIAL total of the points awarded is printed in **Modern Aquarium**. Only the tally of points maintained by the Bowl Show Coordinator is official.
- In case of ties:
 - 1st Tiebreaker – most 1st Places
 - 2nd Tiebreaker – most 2nd Places
 - 3rd Tiebreaker – most entries

GCAS Member Discounts at Local Fish Shops



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10% Discount on fish.



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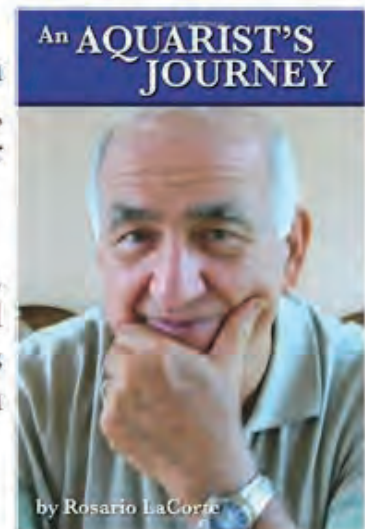


An Aquarist's Journey

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



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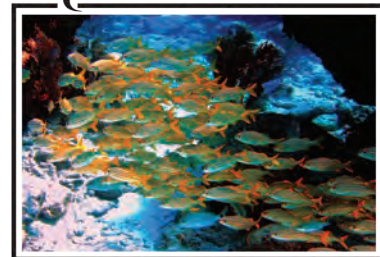
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Steatocranus casuarius

Betta falx

Pseudoepiplatys annulatus

Ctenopoma kingsleyae

DC-3

Pterois volitans

Hemigrammus erythrosine

Haemulon chrysargyreum

Sphyrna barracuda

by Alexander A. Priest

by Alexandra Horton

by Alexander A. Priest

by Joseph Ferdenzi

by Alexander A. Priest

by Alan Mark Fletcher

by Stephen Sica

by Stephen Sica

by Stephen Sica

by Stephen Sica



マーメイド

(Japanese for Mermaid)

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

A series by the Undergravel Reporter

For decades, the mummified remains of a creature resembling a small mermaid have been worshipped at a temple in Asakuchi, Japan, but scientists have long suspected that the mermaid mummy was actually man-made.

Allegedly caught in the Pacific Ocean, off the island of Shikoku, between 1736 and 1741, the famous mermaid mummy has been kept on display at the Enjuin temple in Asakuchi for over 40 years, attracting visitors convinced that the remains would bring them good luck. It is said that these tiny supernatural creatures were immortal and that whoever consumed their flesh would also enjoy eternal life.

But scientists suspected it was really the tail end of a fish grafted on to the upper body of a primate, and sent the artifact for CT scanning to reveal the truth.

Hiroshi Kinoshita of the Okayama Folklore Society, who conceived the study, said that the end results surprised them.

Most of the upper body was actually made from cloth, paper, and cotton, though pufferfish skin was used on the arms, shoulders, neck, and cheeks. The creature's hair is mammalian in origin, its nails were made from animal keratin, and the jaws were taken from an unknown carnivorous fish. No internal skeleton was detected; but there are metal needles in the back of the neck and lower body. The bottom half was manufactured with scales from a croaker fish. Sand or charcoal



powder mixed in a paste-like substance was used to paint the body surface.

Kinoshita initially suspected the artifact was manufactured at some point during the Edo period - an era of Japanese history stretching from 1603 to 1867.

Reference:

<https://www.dailymail.co.uk/news/article-11766401/The-truth-300-year-old-Mermaid-mummy-caught-Pacific-Ocean.html>

Fin Fun

Tasty Treats

Many of the so-called “common” names we give fish are gastronomically based. See if you can match up the scientific names of the fish listed below with their common names.

Rice fish	<i>Etheostoma osburni</i>
Licorice gourami	<i>Sphaerichthys osphromenoides</i>
Chocolate gourami	<i>Puntius titteya</i>
Peppermint goby	<i>Trichogaster chuna</i>
Honey gourami	<i>Parosphromenus deissneri</i>
Jellybean tetra	<i>Etheostoma fragi</i>
Coffee-bean tetra	<i>Coryphopterus lipernes</i>
Cherry barb	<i>Fundulopanchax cinnamomeus</i>
Strawberry darter	<i>Hyphessobrycon takasei</i>
Candy darter	<i>Oryzias latipes</i>
Cinnamon killi	<i>Lepidarchus adonis</i>

source: fishbase.org

Solution to our last puzzle: **WATCHAMACALLIT**

. . . H E R B I V O R E . . . C .	AQUARIUM
. . . F A L G A E H .	ALGAE
B P N I T R I F I C A T I O N . L P	ALKALINE
I O . S M . A Q U A R I U M A . O I	AMMONIA
O W . H . P . L M F R S	BIOLOAD
L E . B . . E . K G . . . M I I C	CANNISTER
O R . O . . . L . A R . . . O L N I	CHLORINE
A H . W L . L A . . N T E V	FILTER
D E . L E . I V . I E . O	FISHBOWL
C A N N I S T E R . R . N E A R . R	GRAVEL
. D . Q U A R A N T I N E E L . . E	HEATER
H E A T E R S A N D . .	HERBIVORE
	IMPELLER
	NITRIFICATION
	PISCIVORE
	POWERHEAD
	QUARANTINE
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