# AQUATICNews

## Brooklyn Aquarium Society Online Newsletter & Magazine

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No. 10



#### Aquatic**News** • Summer 2022





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# President's Message

Only our second meeting back, and even with (www.basny.org). We are a rainy night we still had a very good turnout. still not allowed to use the After over a two year hiatus, our members Aquarium for meetings, were eager to get back. Our location may have but are trying to book other changed to St Brendan's Church, but that hasn't halls for our shows. St stop our members from showing up. We had Brendan's has been great many familiar faces and also many new members letting us use their hall. Please look out for other joining up. There were a lot of great deals on fish, tanks and supplies. locations where we will

meet; it may change in the future. When we do We had Peter Izzo from House of Fins speak not have a meeting place, we will continue to bring you speakers online, with the help of our board member, David Manual. David has been working tirelessly to keep things going and we thank him for all his hard work. Look on our Facebook page for aquatic Moving forward, our location may vary, sales from our club. We will post items for sale periodically. We always have tanks and equipment for sale. If you are looking for something aquatic, reach out to us. Any hobby or aquatic information you hear or read about, please share with our Editor, Ginny Cahill. It can even be your own short stories about your own aquatic experiences. Please send all emails to Ginny at basny.editor@gmail. Please note we will have some restrictions <u>com</u>. Ginny has done a great job since taking over as our new editor and we thank her for her dedication. The Aquatica looks awesome, Ginny. Thank you for all your hard work. We are always looking for your input on our events. Please let us know if you want speakers on any aquatic topic. We need our members

on Nano tanks. Peter brought a beautiful Nano tank with him. He even gave away great carry bags to members in the audience. Members loved his talk, and we thank Peter for taking time out of his life to speak. We also thank House of Fins for being a great sponsor to B.A.S., over the years. so check our web site and Facebook page for details. Next month will also be at St Brendan's Church, located at 1202 Avenue O, on the corner of East 12th Street. The date for next month's show will be June 10th where we will have Yemi Amu, speaking on aquaponics which had to be rescheduled from April due to illness. for that night. Everyone, for your own safety, please wear a mask inside and practice social distancing between members. No one will be allowed inside before 7:30 PM. If we follow these simple rules, we should have a great time. They have a parking lot right across the street. We will have refreshments. They will be given out by our staff. These rules are to keep us all safe, so we can to be more involved as we are always trying to continue having our meetings. better our club.

On another note, anyone wishing to make a donation in Joe Graffagnino's name can donate to either Disabled American Veterans or Tunnel to Tower Foundation. These were two of Joe's favorite originations to donate to. For those of you that don't know Joe past away in September. STEVEN MATASSA, You can check our website for future events President





For more info, please call out hotline 718 837-4455, or visit our site at www. brooklynaquarium society.org

# **Upcoming Speakers**

#### June 10, 2022

Yemi Amu — rescheduled from April due to illness. Aquaponics – Farming in

Yemi Amu is the Founder and Director of Oko Urban Farms, Inc. In 2013 she established NYC's first and only publicly accessible



outdoor aquaponics farm — The Oko Farms Aquaponics Education Center. She directs all of Oko Farms' programs

#### Sept. 9, 2022 Andreas Tanke

At about 10 years old, I got my first aquarium and started to gain experiences with this exciting hobby. In the 1990s, due to my studies in mathematics / computer science and the founding of my IT company, other things came to the fore. However, I returned to the aquarium in 2002.

I have been a member of the German Cichlid meantime. I have cared for Society (DCG), the VDA Zwergcichliden (AKZ) and the more than 25 different Apistogramma species. My biggest International Community Barben-Schmerlen-Salmler-Welse passion, however, are the catfish and especially the genus (IG BSSW), or their predecessor, the BSSW working group Panagolus, of which I currently have about 10 species.



**Daniel Smith Copy Editor:** 

Editor: Virginia Cahill

Associate Editor:

Freshwater Shrimp Editor: Ryan Curtis

Marine Editor: Steven Matassa

Plant Editor: Isidore Zwerin

Catfish Editor: Ian Fuller

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**Contributing Writers:** 

Anthony P. Kroeger

Joe Graffagnino

**Ryan Curtis** 

Tomasz Liz

### **Brooklyn Aquarium Society Board of Directors**

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The Brooklyn Aquarium Society Inc. is a non-profit organization 501(c) (3) for people interested in the aquarium hobby and the study of aquatic life. The Society meets the 2nd Friday of each month except July and August at the Education Hall of the New York Aquarium at Coney Island, Surf Avenue at West 8th St., at 7:30 PM. Meetings are open to visitors. Refreshments are served.



The On-Line Journal

of the Brooklyn

**Aquarium Society** 

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Water



including education, design/build projects and community related activities. Yemi is one of NYC's leading aquaponics experts and is a committed educator. Over the past decade, she has facilitated the creation and maintenance of over 20 edible spaces throughout NYC; created and implemented various culinary, nutrition and gardening programs for both youth and adults; and promotes aquaponics as a tool for environmental awareness and stewardship. Yemi has a M.A. in Health and Nutrition Education from Teachers College, Columbia University. She was awarded Hunter College NYC Food Policy Center, Rising Star in NYC Food Policy (2016).



in the VDA.

My interests are clearly in the underwater fauna of the South American continent, especially in the dwarf cichlids of the genus Apistogramma and the Loricarids. In the

It'll be one year since *Joe Graffagnino* 

passed away on September 8 from complications of Covid-19. He was a member of BAS for decades, serving every board position there is. He was an accomplished breeder and past president of the club. We are running remembrances of Joe in our next issue to mark the anniversary of his passing. If you'd like to say something about how Joe touched your life or involvement in all things aquatic, please consider emailing your sentiments to basny.editor@gmail.com for inclusion in our Fall issue. Kindly asking for submissions by July 15th please.

## **New Members**

Alexandr Vinnitsky, Christopher Potter, Jeff Kaye, Christian Taylor, Marissa Hill Samuel Velez, John Jacono, Jeremiah Reilly, Taylor Larson, Zuzanna Smith

## **Renewing Members**

Gabe Scelta, James Longo, Jean Segarra, John Taylor, Joseph Minardi, Kai Nguyen, Matthew Mason, Mike Gillespie, Nick Caputo, Sal Amato, Curt Cocalas, Danyale English

## **Donations – Thank You!**

#### Individuals for March 2022

Bill Amely Steve Matassa Dan Smith Don Lang Nick Caputo Scott Peters Alexandr Vinnitsky

Jeff Kaye Gabe Scelta Yaari Felber-Seligman

#### Stores/Mfg

All in 1 Petshop, Brooklyn, NY Monster Aquarium, Queens, NY Pacific Aquarium, New York, NY Petqua, New York, NY

## **Open Board Positions**

The board members meet once a month to discuss club business, and we can use your help! There are four board positions currently available: corresponding secretary, treasurer, webmaster and recording secretary. If you'd like to attend a meeting which are held the 1st Friday of the month, September through June, please notify Steve Matassa at (347) 277-4793 by the Tuesday before the meeting.

# Why Join an Aquarium Club

Contrary to popular belief, the main reason for joining a fish club is not for the free cake and coffee. While there are free refreshments at meetings, and even great buys on products and livestock, the really great benefit is knowledge. Joining the Brooklyn Aquarium Society is a great way to learn how to raise and breed tropical fish. Experienced members pride themselves on teaching new hobbyists and sharing their expertise.

Established in 1911, the Brooklyn Aquarium Society is over 100 years old and growing. Many members have been in the club for decades, and they are still learning from each other. We have monthly expert speakers on different topics related to home aguaria. For a small membership fee, you get access to all this. Check out our web site at www.basny.org for future events. – SM

salt water tank!



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From Brooklyn Auarium Society's Scrumptious Meals

# Last Minute Egg Yolk Drop Soup

This is a really high protein recipe that should put weight on fry fast. It is also very easy and fast to make. John Todaro used this recipe since he was a teenager.

If your fish suddenly spawned and now you have a tank full of hungry fry ready to eat and you have nothing in the pantry to feed them, quick — start boiling a pot of water. Get an egg from the fridge and drop it in. If you can't memorize this recipe, (duh!) you should tape it on your fridge door. It's a real fry saver!



www.vecteezy.com/free-vector



RECIPE

#### **INGREDIENTS:**

1 hard boiled egg Boiling water YOU WILL ALSO NEED: 1 clean hankerchief 1 small plastic container with cover, half filled with water 1 eye dropper

#### **PREPARATION:**

Boil a pot of water and pop in the egg, boil about 20 minutes until it is hard boilded. Cool the egg either in cool water or palce it in a bowl of ice cubes. When cool remove the yolk and place it in the center of the handkerchief or other clean cloth. Fold the handkerchief so as to screw the cloth tightly and with your fingers mash the yolk forcing it through the cloth, dipping or scraping the mashed egg into the container of water, until all the yolk is forced through the cloth. (There will always be some left over.)

**FEEDING:** 

Using the eyedropper, feed the fry no more than they can eat in a couple of minutes. Giving small meals throughout the day is better than one big meal. Uneaten egg yolk can foul the tank very quickly and you can say goodbye to your fry. You can refrigerate the mixture for a few days, but if it starts to smell like rotten egg, discard the mixture and boil another egg.

## THE BROOKLYN AQUARIUM SOCIETY



## St. Brendan's Catholic Church Parish Hall 1202 Avenue 0





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**111 Years of Educating Aquarists** 



PRESENTS



http://www.basny.org/ For Information Visit BROOKLYNAQUARIUMSOCIETY.COM Or Call BAS 24 hr. calendar of events hotline (718) 837-4455

# **Tip of the Season**

June is the month when it is safe to transfer any but the most delicate tropical fish to outdoor ponds in small containers. Just make sure that the water temperature does not drop lower than 65° degrees at night. It is not likely that there will be any unfavorable effects, especially if the temperature is fairly high during the day. Swordtails, platies and most livebearers do very well in ponds in the summer. I have found that their color became more intense when I netted them out in the fall.

The same goes for many cichlids, and you may be surprised that they have bred over the summer.

Keep in mind that fish outdoors have many enemies from cats, birds, raccoons, water beetles and even rats. Even dogs who might like to cool off by splashing or lying down in shallow ponds or pools, besides muddying the water, will frighten the fish into jumping out. Try not to have the pool under a tree; falling leaves will change the chemistry of the water and may make the pH too acidic.

Don't forget curious children who will find the pond or pool irresistibly attractive, so think about some protective measures. — John Todaro (From BAS Bulletin June 2008)

St. Brendan's Catholic Church Parish Hall at 1202 Avenue O, April 8, 2022.



# Apistogramma inconspicua **Checkered Dwarf Cichlid**

By Joe Graffagnino — BAS

I had obtained a group of these tiny fish from fellow fish-aholic Larry Jinks. Unlike some Apistos this species did not have flamboyant red colors and they don't tear themselves to pieces in close quarters. The group consisted of a large dominant male and five smaller fish. I could not sex the others because lesser males look very similar to young females in size and coloration.

These fish originate from Bolivia and Brazil in South America and are found in the Amazon, Guapore and Paraguay River basins. Their environment is 6.5 – 7.9 pH, water hardness of no greater than 10 DH, with a temperature range of 23 – 28 degrees Celsius (73 – 83 degrees Fahrenheit). Their size is from 3.7 - 7 cm (11/2)-23/4 inches). The female lays her eggs on the cave roof, where she remains with the eggs and fry until they are free swimming. At that point the male and female watch over the young fry.

The dominant male is quite stunning in his coloration. From the corners of his mouth over his cheeks and gill cover are a bluish green iridescent color and a blue green shine on his sides. His anal fin starts with yellow, quickly becoming green and then blue. He controls a harem of females and chases all other males away.

I housed the group in a 2 ½ gallon aquarium that had a couple of different types of small caves, plenty of java moss, a corner filter consisting of charcoal and ammonia chips and a heater set to 80 degrees Fahrenheit. The fish acclimated well to their new home. Even after several weeks there were no nipped fins. After a couple of months I noticed that a couple of the fish had started to change color. The male was becoming more vibrant in his blue and green coloration. Two smaller fish had changed to a bright yellow color with a black band over their eves. The male was jumping from cave to cave and chasing smaller Apistos away. There were



Kevin Plazak

no "dither" fish in this small tank, so the male contented himself with chasing smaller males. While performing a water change a female charged out of the cave and attacked the siphon hose. A sign she is guarding fry or eggs. I decided to remove all the other fish from the tank and relocate them to a five-gallon tank. Mom was left alone to care for her brood.

About a week later I noticed several tiny fry at the entrance to the cave. Their bellies still had a yolk sack so I did not feed them. I started to perform 10% water changes, opposed to the usual 30%. A few days later the fry were out and about with mom close by. This tank had a lot of algae in it that the fry could pick on for a "snack". I feed a mixture of finely crushed cichlid flakes, "Golden Pearls" and imitation brine shrimp and frozen baby brine shrimp. These fry must be the slowest growing babies I have ever witnessed, after 3 months the majority was still only a halfinch in size. Like many dwarf cichlids they are tolerant of small tank space and will take any food types.

Apistogramma inconspicua are a very interesting and well-behaved cichlid and would be ideal for a small community aquarium. They are great at keeping the snail problem under control. Try these little Apistos; I know you will enjoy them.



# **Crayfish Love**

By Tomasz Liz – BAS

Cravfish have provided some memorable moments in my 20 plus years in the aquarium hobby. I have kept inexpensive blue, orange and brown Florida crays. Each has a distinct personality, strange habits, likes and dislikes, and a taste for fun and play. Sometimes they are just being plain grumpy and want to be left alone. At night they can completely rearrange the décor of the tank and there are days when they just want to pack up and leave!

I don't want to bore you with details of ph, water hardness and other technical details here, those details to be found online or by asking other members of your clubs. Rather I wish to share my various observations and tempt you in trying to keep these fascinating creatures, study their behavior, and enjoy their company. There are many varieties of crays to choose, from the

dwarf Mexican crays to the gigantic Australian Yabbies. The various colors, shades are mesmerizing. The shapes and size of their claws range from small but heavy to long and spiny.

Before you decide to buy a cray – always do your research (as you would when buying new fish) as to their requirements regarding temperature and most importantly – their size. The crays available in stores (blue, white, orange, etc.) will grow to at least 6 inches plus another 3-4 inches for the claws. This bulldozer-like creature needs space to hide and move around the tank.

The dimensions of a 40 gallon breeder tank is perfect and the minimum aquarium should be 30 gallons. Crays are solitary and very territorial, keeping 2 or more in a 40 gallon will end in disaster. The tank should have 3-4 inches of a





fine substrate. This makes it easier for the cray to burrow and it is much, much easier to keep the tank clean. Crays are messy eaters.

Crays will molt year round (very often if you start with a 2" baby) therefore you need to

provide a big and easily accessible place to hide. Preferably more than one. I found that a PVC "Y" connection for a sink is perfect! Provide your cray with "toys" to keep the pet busy. When crays are bored – they start doing crazy things: they start destroying the tank. So – a collection of various size pebbles scattered around the tank, 2 or 3 marimo moss balls and yes – small crazy colored plastic



shells (my 5 year old daughter bought them for Kevin, our dear crayfish). They love to rearrange and move stuff around.

The most important part of keeping a cray is keeping a careful eye on it. Crays will want to leave your tank. Any age. All the time. Relentlessly. Any and every length of tubing, filter intake is an escape route that has to be sealed by a wire mesh weighted down by quite heavy stones. Crays are remarkably strong and they will never stop trying to break out of the tank, especially the wild caught. It's just their

nature. Plants should be placed in the middle of the tank to eliminate that possible escape route. If they do escape, please don't abandon your pet – find it, depending on outside temperature, humidity, you have just hours to find the ninja. Look into the most unlikely places. Listen -

crays are always on the move and a scraping sound will soon lead you to the escapee. Never throw a rescued cray directly back into the tank - it could possibly drown. Pour 2-3 inches of tank water into a bucket (just enough to cover the beast) and place a stone in the middle for the cray to climb on to if it wishes. Cover the holding vessel and leave the cray for about 4-6 hours to recover in peace. Crays become a bit "gluey," when outside the tank and will pick up carpet

fibers and other debris during their escapade. After soaking them in the bucket or pot, gently and carefully remove any debris from its mouth, antennae, legs and claws.

To calm the cray, take it out for walks. Kevin was out for walks starting when he was about a year old, at least twice a week. Try not to scare them when removing from the tank though, lift them gently and slowly by the carapace (the largest part of its body), and place it on a large vinyl tablecloth spread on the carpet. But not for too long, 10 minutes or so is fine. Crays need to

breathe fresh air every now and again. I found that a tall plastic plant with a stiff stem (crays are heavy) was perfect for them to climb up and stick their heads above the water line. Floating large anubias plants work also. In general, despite reading the opposite – I found no issues with having a fully planted tank with lots of fish – never any drama. Yes, they will take out their aggression and tear up the occasional plant or cut a moss ball to pieces. But this will not be a daily occurrence. Choose fish that are on the smaller side. Choosing plecos, cories, goldfish or cichlids will not have a pretty end. My 12 white clouds follow my crays as if he was their big brother, even following him into his PVC cave.

Spoil your cray – offer a good selection of food: algae wafers (choose the ones made from kelp, these are rich in calcium, helpful for molting), shrimp pellets, baby carrots, spinach, sushi wraps. Experiment with different foods to see what they like and what they don't. Fun fact: crays poo like rhinos. Instead of siphoning the poo constantly, I use a turkey baster to target the droppings to remove them. To keep the tank in pristine condition use multiple filters or a canister if you can. Keep up with the water changes, these are big and busy creatures. Keep an eye on the ammonia, nitrate and nitrite levels and never let the PH drop below 7. Molting is a very stressful moment for a cray (as well as for the owner), I had sadly lost 2 crays due to a bad molt.

Crays are often looked upon as a snack or as silly, simple prehistoric crustaceans always ready for a fight, claws up. However, if you choose to keep one, I have no doubt you will develop not only a strong bond (perhaps love?) for your new pet, but a true admiration for their industrious and highly intelligent behavior, the complexity and purposefulness of their actions. You will have the opportunity to discover what made this armor plated, sharp clawed and at times lightning fast creature survive for over 30 million years on this planet. Now that is quite the feat!









# What Kind of **Butterfly is that? The African Butterfly – Pantodon** bucholzi



WEIRD! That describes the African butterfly extended ala Congo Tetra style. This is a twilight fish. active fish.

Big head and mouth, big eyes and pectoral All specimens offered are wild caught and usually imported from Nigeria. Price is usually reasonable and most stores offer this fish, or can Native to Nigeria, the African Butterfly grows obtain it for you. African Butterflies are surface fish. They never feed or rest on the bottom unless they are sick. They feed only at or very near the surface.

fins, weird shape. A true oddball fish and interesting to keep in your aquarium. to 4" inches. It is milk chocolate in color with a dark chocolate band eye to jaw and irregular dark chocolate marbling on the body. All the fins have irregular rows of dark chocolate spots. A long, shallow tank is best for these fish. And those fins! Well, they're odd too.

The dorsal is very small and set far back on African Butterflies do not like strong currents. the body. Pectoral fins are large, long and broad. Use a small power filter with a sponge filter. Seen from above when extended (most of the Dark substrate and background is a must, as are floating plants. I highly suggest the use of time), they do look like a butterfly's wings. Pelvic fins are small but have huge filamentous watersprite with this fish. The Butterflies will extensions of the fin rays. The anal fin is broad hide under the floating leaves all day and the and long and notched in the male. plants also block the Butterflies from bright light The center of the caudal fin is greatly which they do not like. They also love their own

By Tony Kroeger — BAS

A 20-gallon long or a 55-gallon tank is fine

"floating cave." I cut styrofoam coffee cups in half and float them.

Your Butterflies will happily call them home! Of all the aquarium fish species I've imported, this fish jumps the very best! I once opened a bag of 100 from Nigeria to transfer into a tank. By the time I had the cover off the tank all 100 Butterflies were out of the bag and flopping around on the floor, in less than a minute.

When you use a net to move this fish, always cover the net with your hand. If you don't the Butterfly will jump right out of the net while you're holding it. Always be sure this fish is covered immediately and completely! If you don't, you'll find your butterfly dried up on the floor.

African Butterflies are peaceful with fish they cannot swallow and not surface inhabiting fish.

Never keep this fish with Danios, which it will eat or fight with. Likewise, no fin nippers such as Tiger Barbs or Serpaes which will shred the Butterfly's fins. They do fine with midwater fish like Angels and substrate fish like Corys and Rams.

For water, use low to medium hardness slighty acidic water that should be kept warm 78 - 84°F is good. I change 30% weekly. Keep your water quality high. They do tolerate poor water quality in shipping, but don't push your luck.

Feeding should be live food only, although some specimens will learn to take large flakes eventually. Feed your Butterflies small feeder guppies, mealworms (use a tweezer to hold them at the surface), and crickets which they love and will gorge themselves on. They also love ants of all kinds (except fire ants) and spiders.

Many specimens will learn to eat freshly swatted houseflies, moths and mosquitoes if vou throw them onto the surface so they appear to have fallen off a leaf. Any food which sinks below the surface will be ignored.

I feed mine daddy long legs as a special treat which they go completely crazy over.

Breeding African Butterflies is not too hard, but raising the fry is difficult. Certainly good for BAP points. Adults are sexed by looking at the anal fins. Males are notched. Females are straight.

Condition the adults heavily on live and fresh swatted insects. Use a 20-gallon long with floating water sprite and an airstone for one pair.

No substrate. Cover the external bottom and all sides (except for the top 1/3rd of the front glass) with black construction paper. Use peat moss extract.

Butterflies spawn at the surface. An average spawn is from 80 to 200 eggs. Remove adults after spawning. Always make sure you've covered the tank!

Eggs float among the watersprite. They're transparent when first spawned, but soon turn brown then black as they develop. Eggs will



hatch in about 36 hours.

Now comes the hard part; raising the fry. The fry are not all the same size at hatching and accept only live food. Try live cyclops and newly hatched baby brine shrimp at first. Keep the lighting dim; you can use a flashlight to draw the cyclops and baby brine shrimp to a concentrated surface area near the plants. The baby Butterflies will eat them this way. Larger baby Butterflies readily cannibalize their smaller brethren so you must sort them frequently to keep similar sizes together. Given good water quality, they grow fast. African Butterflies are very unusual and worth the effort. Try some.

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# What I Feed My Plecostomus



Earthworm, Krill, Shrimp, Carnivore, Blackworm Probably the most often asked question I get is "what do you feed your plecos?" and Spirulina pellets.

With dry foods, my thinking is that each type As varied a diet, the better and this holds true is made with different ingredients and may Regardless of genus or species, I always keep provide a slightly different nutritional value than the next, so occasional feedings, even if it is only once every couple of weeks, gives your fish a little better balanced diet. Foods that I have that fit into this category include, in no particular order: an assortment of New Life Specrum pellets, Plecocaine, Hikari wafers, Xtreme Cat Scrapers & Catfish Peewee, Trout Chow, and anything I receive in a raffle or as a door prize....all you hobbyist, who attend shows, conventions or club meetings know about those! With all of that said, another factor to look at is that in every tank of plecos I maintain, I keep active, open water fish with them.

for plecostomus as well. wood in the tank with them. As fry, even with full egg sacs, I believe it is vital for success in raising them to have some seasoned wood available for them to graze on. By seasoned, I mean wood taken from an established tank which is already soaked, soft, and has a biofilm (a thin film of bacteria) covering it, not a dry piece off the shelf. In addition, for fry, seasoned leaves also provide this vital biofilm and works as well as wood. I personally use oak leaf litter in quite a few of my tanks so there is always some available if needed when fry are on hand. The types of wood I use are Beech and Alder, but there are a good many types that are safe to use. Some quick research online This keeps them relaxed as they know some large predator isn't lurking above them ready to will assist with what is acceptable to use and cause problems! The bottom feeders will have the which are not, such as Pine.

Now as you read on, please keep in mind, species that eat/require more meaty foods in the wild get more of the meaty type of foods.

Ancistrus get more of the wood diet with some vegetable based foods and omnivores get a good live blackworms, canned green beans, and seasonal live daphnia and mosquito larvae. mix of it all. This all boils down to knowing what your fish should be eating. Frozen foods are some All too often I see hobbyists spending good of the better types of the foods I offer. The ones money on nice fish and have disastrous results, I use regularly include: Bloodworms, Shrimp or at best minimal success just maintaining them, (what we eat!), most of the Repashy gel types and because they feed one or two of the cheapest foods they can find, with a "special treat" of something earthworms.

The sinking dry foods that I use most often include: Sera Catfish Chips & VipaChips,

By Eric Bodrock — GPASI Reprinted from Greater Pittsburgh Aquarium Society publication Finformation, Aug. 2017

opportunity to feed on what those fish are being feed as well. That would mostly be a wide selection of about a dozen types of specialty and commonly used flake foods and often live baby brine shrimp,

decent once a week! All fish need to have a good, proper diet to thrive and reproduce.

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#### THE USE OF LAYOUT MATERIALS IN NATURE AQUARIUM by Aqua Design Amano Translated by Tomoko Schum Photos by Aqua Design Amano

The framework of a composition in Nature Aquarium is produced with layout materials, such as stones and driftwood. The angle and orientation of an individual branch are carefully examined when arranging driftwood. There are three basic layout compositions: triangular, U-shaped, and mounded. No matter what composition you build, driftwood must be arranged securely in it. Driftwood is absolutely the framework. It must be arranged carefully by considering the flowing line and the angle of each branch.



Example 1: Branch Wood and Yamaya Stones W35.4" x D18" x H18"

#### EXAMPLE 1: COUNTERACTING THE BUOYANCY OF BRANCH WOOD BY STACKING YAMAYA STONES RANDOMLY ON IT

This is a composition in which the buoyancy, a drawback of Branch Wood, was overcome by stacking Yamaya Stones randomly on them. The layout capitalizes on the characteristics of each material very well. The use of one point perspective method added depth to the layout.



▲ Example 2: Horn Wood W71" x D24" x H24"

#### EXAMPLE 2: A U-SHAPED COMPOSITION IN WHICH THE CENTER ARCH CREATES A FOCAL POINT

A concave composition was produced using the branch tips of Horn Wood. Producing an arch with driftwood, rather than simply leaving the space open, resulted in a distinctive composition framework. The center arch created a focal point.

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▲ Example 3: Horn Wood and Manten Stones W47" x D18" x H24"

#### EXAMPLE 3: COMBINING DRIFTWOOD BRANCHES TO LOOK LIKE A SINGLE PIECE OF DRIFTWOOD

Although the Horn Wood on the right looks like a single piece of driftwood at a glance, a closer look at the area indicated by the arrow reveals that the pieces were combined using Wood Tight. Stones and driftwood are combined well in this layout.



▲ Example 4: Horn Wood and Ryuch Stones W35.5" x D18" x H18"

#### EXAMPLE 4: THE DRAMA OF THE JOURNEY OF DRIFTWOOD

If you come across an interestingly-shaped driftwood piece, it may be a good idea to create a layout that makes the most of its presence. In this layout, an impression of water flowing from left to right was created to suggest a dramatic journey of driftwood drifting down from upstream.



A type of driftwood like Horn Wood is suitable for producing the composition framework by combining a few branches. The key point here is to create a tall arrangement. Concentrating driftwood pieces together in a low position tends to produce a flat appearance. In this layout, Kei Stones were used to secure the driftwood branches. Ferns, moss, and *Anubias* were attached to the driftwood to enhance the natural impression of the layout.

#### TANK DATA

Aquarium:	Cube Garden W90 x D45 x H45 (cm)	Water Quality:	Temperature: 25°C (77°F) pH: 6.8; TH: 20 mg/l
Lighting:	Grand Solar (NAG- 150W-Green, NA PC lamp 36W x2), turned on for 10 hours per day	Aquatic Plants:	Wabi-Kusa Stem Plants Mix Hemianthus callitrichoides 'Cuba' Lilaeopsis novae- zelandiae Cryptocoryne beckettii 'petchii' Cryptocoryne wendtii (Green) Cryptocoryne wendtii (Green) Dryptocoryne wendtii (Brown) Bolbitis heudelotii Anubias barteri var. nana 'petite' Riccia fluitans Microsorum sp. Eleocharis vivipara Fontinalis antipyretica
Filter:	Super Jet Filter ES-600 (Bio Rio, NA Carbon)		
Substrate:	Aqua Soil, Bright Sand, Power Sand M, Bacter 100, Clear Super, Tourmaline BC		
CO <sub>2</sub> :	Pollen Glass Large 30, 3 bubbles per second via CO <sub>2</sub> Beetle Counter (using Tower)		
Aeration:	14 hours after the light is turned off using Lily Pipe P-4		
Additives:	Brighty K; Green Brighty STEP2		



Example 8: The appearance of a layout right after planting. A tall semi-circular composition was produced by combining multiple driftwood branches.

#### KEY POINTS FOR PLANTING THAT MAKE THE MOST OUT OF UNIQUE TRAITS OF DRIFTWOOD OR STONES

Whether you can bring out the distinct character of a material depends greatly on the way you use aquatic plants with it. An impression of the layout material changes a lot depending on how aquatic plants are used. such as leaving the surface of driftwood or a stone bare, hiding it with an aquatic plant, or the balance of the two.



A Example 9: Colorful stem plants were planted in the left and right sides of the background. Although the visible areas of the planting are limited, they play an important role in enhancing the beauty of the layout.



Example 10: The surface of the driftwood was moderately hidden by the surface completely.



Example 11: Cryptocoryne and Anubias were planted around the stones supporting the driftwood. The use of sciophytic (shade-loving) plants tightened up the appearance of the middle around.

attaching ferns, mosses, and Anubias. The key point is not to cover up

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TheShrimpFarm.com is the place to go for freshwater shrimp. The owner is **Ryan Curtis**, with a new mailing address: 2401 East Washington St, STE 200 A2, Bloomimgton, Il 61704. Visit the Aquarium Shrimp Forum http://theshrimpfarm.com/forum/index.php to ask questions, talk to other shrimp nuts and discuss everything related to Freshwater Aquarium Shrimp.

# **Xiphophorus mayae**

By Joe Graffagnino — BAS



he Mayae swordtail is the largest and most full-bodied fish in this genus. This beauty hails from Central America, specifically Guatemala and Honduras. The males can grow 6 - 7 inches with the sword, while the females grow to 4 1/2 inches. They love hard water on the cool side with a temperature range of 70 - 77° degrees Fahrenheit. They have a pale green body with orange lateral lines throughout and spotted orange dots in their dorsal fins. The male's sword is gorgeous with its colors of green, blue and yellow.

I was given a trio of these beautiful swordtails during a meeting at the North Jersey Aquarium Society by a good friend and fellow fish breeder, Frank Nell. 11 days after I placed them in a heavy planted 15-gallon tank, one of the two females dropped 20 fry into the tank. It is hard to tell if the female is holding because they always appear to be pregnant; however, the dark spot on their lower abdomen never gets darker or larger, so it is difficult to identify when they will release their young. Five days later, I moved the

babies into a 10-gallon tank. In a few days, none survived... was it not enough acclamation time or was the water not hard enough for them?

Two months later, I found 17 babies hiding in the floating grass. I had a 10-gallon waiting for them with the same water as in the tank they were born in and I had coral pieces in the 10-gallon tank to maintain hardness. The fry did well, eating a varied diet of crushed flake, baby brine shrimp, and frozen mosquito larvae. They grew fast.

I highly recommend this species as a hardy and beautiful addition to any aquarium. The females do not do well in breeder traps due to their large size. I suggest keeping them in a 10 to 20-gallon tank that is filled with plants and check it daily for any fry. You will find the babies near the top of the water. Net them out and have a tank ready for them or simply remove the adults to another aquarium you have prepared in advance. I know that you will enjoy them very much.

# pH in a Dwarf Shrimp Aquarium



WHEN KEEPING DWARF SHRIMP in the home aquarium it often becomes necessary to Chemicals There are chemicals sold at almost every pet store that sells fish equipment that are intended to lower pH. These chemicals lower the pH by adding acid to the water. This is only a temporary solution as the buffers in the water counteract the chemicals and the pH will Before modifying pH it is important to note eventually return to its original state. This is a very expensive, ineffective, and dangerous

modify water parameters to meet the shrimp's requirements. The pH of the water is often one of the most important parameters to maintain in appropriate ranges. that all changes should be made gradually if there are shrimp already in the aquarium. It is also important to not allow the pH (or any water method of altering pH. The inconsistent nature of these chemicals causes pH swings that can parameters) to fluctuate.

#### Lowering pH

cause major problems with Dwarf Shrimp.

#### Co<sub>2</sub>

Carbon Dioxide injection in the aquarium is often used to aide in plant growth. Injecting Co2 causes a Co2 to bond with the water creating carbonic acid. The carbonic acid lowers the pH of the aquarium water but has no effect on hardness. If the water is fairly soft but has a high pH than desired Co2 injection using a fully automated system can be an effective method of controlling pH. Caution should be used when using Co2 as overdoses of Co2 can cause major issues.

#### **Substrates**

There are a few substrates on the market that are made to specifically soften the aquarium water and lower the pH. These substrates are often used in conjunction with reverse osmosis filtration, which lowers the water hardness greatly. The best substrate for this purpose is Aqua Soil Amazonia. Using these substrates with or without reverse osmosis is the most recommended method to maintain soft slightly acidic water. Care must be taken when using a new bag of Aqua Soil Amazonia, as it will cause an Ammonia Spike. See Cycling Aqua Soil Amazonia for more information.

#### **Raising pH**

Chemicals

There are chemicals sold at almost every pet

store that sells fish equipment that are intended to raise pH. These chemicals cause a temporary rise in pH, but just like the chemicals used to lower pH they get expensive and are very ineffective. These chemicals cause fluctuations in water parameters which can be dangerous to aquarium inhabitants.

#### **Substrates**

There are many substrates that are made to increase pH in the home aquarium. Many substrates made for marine aquariums are good for raising pH. Crushed coral is one of the better substrates for this. Substrates made for African Cichlids are great at maintaining a high pH. The best substrate for this is Eco-Complete African Cichlid Substrate.

#### Filtration

When only needing to raise pH slightly, add buffering substances to the aquarium filter. Adding a handful of crushed coral to a filter will buffer the waters hardness and will also cause the pH to rise. This solution is safe and works long term. The crushed coral in the filter will only need to be replaced every 3-4 months.

It is very important to prevent pH swings in the aquarium. Instability in the aquarium is often much more harmful than maintaining a stable pH outside of the ideal range. Stability is crucial!



#### **BROOKLYN AQUARIUM SOCIETY PRESENTS**

# THE JOHN TODARO MEMORIAL

#### GOAL

To honor Editor John Todaro and encourage original writing about the aquarium hobby.

#### **PROGRAM CRITERIA**

The writing program is on a fiscal year basis (July 1 – June 30).

There is no limit on the number of articles submitted by an author. However, only three (3) articles will be evaluated by the committee for the writing awards. Judged by the committee and if a tie the Chairperson's decision is final.

Articles on breeding fish will have a dual submission in both the writing program and the Breeders Award Program. The writing program is open to members and non-members of any age.

The committee will evaluate and vote on each article based on the following criteria:

- The originality of the article (past year, plagiarism of another's work or previously published articles will be disqualified).
- Clarity of species and subject matter.
- Depth of research research articles to include citations and footnotes to sources if any.
- Use of scientific names for fish, plants and corals.
- Spelling
- Artwork &/or photos submitted with the article will receive extra points if related to the article or deduct points if incorrect or unrelated to the article.
- If an originally submitted article is printed by another club, within the same year as the same article is submitted to BAS, the author will not be penalized

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AquaticNews The Journal of the Brooklyn Aquarium Society, our tri-monthly (4 issues except July & August) award winning publication is on our website. Each issue is filled with articles on both marine and freshwater aquaria keeping. Articles can be downloaded.

*Meeting reminder!* All members receive flyers announcing speakers via email, keeping members up to date.

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BAS Hotline: For the latest information call the BAS 24 hour Hotline 718 837-4455 for event and inclement weather information. If you need advice on fish keeping, breeding or where you can find rare or hard to find fish, you can often get help calling the Hotline. Help from the Hotline is always free.

Volunteer: The Brooklyn Aquarium Society is an organization run by volunteers. Without them there would be no BAS. Volunteers help set up events, write articles, coordinate projects, assist and work on committees, help at auctions and meetings. Join in, help, learn and have fun doing it. Call Steven Matassa, President (347) 277-4793.

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