



AQUATICNews

Brooklyn Aquarium Society Online Newsletter & Magazine

VOL. 4

Winter 2023

No. 15





Inside AQUATICNews



- 3
President's Message
- 5
Calendar
- 6
New members and how to get involved with BAS
- 7
Tip of the Season
- 8-9
Photos from our meetings at Education Hall
- 10
Recipe: *Classic Beef Heart*— BAS

- 11
Purchasing Bettas Online
Bill Amely – BAS
- 13
DIY — Floating Planters
David Manuel — BAS
- 15
The World's Oldest Living Aquarium Fish
Soumya Karlamangla — NYT
- 18
Meet My Tank!— *Liz Puello*
- 20
Corydoras stenocephalus
Joe Graffagnino — BAS

- 21
An Iwagumi layout with simple plant arrangement
Aqua Design Amano, translated by *Tomoko Schum* — TAG
- 26
The Difference Between Caridina and Neocaridina Shrimp
Ryan Curtis — *The Shrimp Farm*
- 28
Writing Contest Details
- 30
Get To Know Our Sponsors

President's Message

The October Giant Auction event was a great success! We had many donations from stores, manufacturers and our own members. The 50/50 model is bringing in a lot of bags of fish and plants each month. What is a 50/50? Whatever livestock our members bring in, they split the winning bid with the club, 50/50. This is for livestock only. We are going to continue to do a 50/50 every month except during our next Giant Auction which is in May 2024.

November 10th was our last meeting and we were thrilled to have Jackie Anderson from Project Piaba speak to us on how having a home aquarium can help conserve rainforests. She delivered her compelling presentation virtually, talking to us from Boston. We ran a story on Project Piaba in our Fall 2020 issue of AquaticNews. Check out the back issue on this site.

Next month we won't have a meeting because we're holding our annual holiday party. It's being held at Dolce Vita at 5811 Avenue N in Brooklyn, the same location as last year. We'll have a terrific private room all to ourselves!

I know that I mention this every month, but it's true! Our board members work hard to bring you a great show every month. I want to thank them for arriving on time to open the event space, set up chairs and for accommodating guests and sometimes unusual fish. Anyone else who wants to help out, we'll gladly give you something to do! Let's talk about it at the holiday party. Get involved!!

Look on our Facebook page for aquatic sales, from our club. We post things for sale periodically, but always have tanks and equipment. If you are looking for something aquatic, reach out to us!

Please note: we need content for our quarterly publication AquaticNews. Any hobby or aquatic information you come across, please share with our editor, Ginny Cahill. It can be your own aquatic experience written up with photos of your fish and tanks. Please send all emails to Ginny at basny.editor@gmail.com. We are always looking for your input! We need our members to be more involved as we are always trying to improve our club and publication.

For more info, please call out hotline 718-837-4455, or visit our site at www.brooklynaquariumsociety.org (www.basny.org)

STEVEN MATASSA
President



November's auction gets underway.



Join us on Facebook

<https://www.facebook.com/groups/BAS.FB/>



AquaticNews

Editor: Virginia Cahill

Associate Editor:

Daniel Smith

Copy Editor:

Freshwater Shrimp Editor:

Ryan Curtis

Marine Editor: Steven Matassa

Contributing Writers:

Bill Amely

Ryan Curtis

Joe Graffagnino

David Manuel

**The On-Line Journal
of the Brooklyn
Aquarium Society**

VOL. 4 Winter 2023 No. 15

AquaticNews is published online four times a year by the Brooklyn Aquarium Society. Original articles may be reprinted by other non-profit organizations, provided proper credit is given to the author and AquaticNews, and two copies are sent to the Exchange Editor. Transcriptions of lectures may not be reprinted without written permission of both AquaticNews Editor and the Speaker. A notice of where original

AquaticNews articles have been published should be sent to the BAS Exchange Editor; P.O. Box 290610, Brooklyn, NY 11229-0011.

AquaticNews will exchange publications with all interested societies. If we do not receive your publications for three consecutive months, we will assume you no longer wish to exchange and your club may be removed from our mailing list.

ALL CORRESPONDENCE CONCERNING THIS PUBLICATION SHOULD BE SENT TO:

• Editor: Virginia Cahill 10 Ocean Parkway, B6, Brooklyn, NY 11218

You can submit articles to the Editor by mail, or E-mail to: basny.editor@gmail.com.

Brooklyn Aquarium Society Board of Directors

OFFICERS

President Steve Matassa

1st Vice President

David Manuel

2nd Vice President

Gennady (Gene) Kogan

Treasurer

Open

Corresponding Secretary

Open

Exchange Editor

Open

Membership Chairperson

Sal Amato

Sergeant-at-Arms

Neil Mayerson

Recording Secretary

Open

Web Master

Open

Publications Editor

Virginia Cahill

BOARD MEMBERS

Marie Licciardello

William Amely

Denver Lettmen

Leon Perry

Tomasz Lis

Lita Goldberg

Don Lang

Paul Santiago

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.

Upcoming Speakers

January 12, 2024 James Perronod
James operates a 5000 sq. ft. discus and tropical fish showroom (Discus R Us).
He is the President of the Jersey Shore Aquarium Society.

February 9 Joe Yaiullo
Joe was the senior aquarist at NY aquarium for 8 years before becoming
the curator/co-founder of the Long Island Aquarium

March 8 Hock Ng — *Nature style aquascaping*
Hock Ng is a member and past president of the NJ Aquatic Gardener's Club.



45th Annual Tropical Fish Convention

www.northeastcouncil.org/annual-convention



Mystic Marriott Hotel & Spa
625 N Rd, Groton, CT 06340



April 5 - 7
2024



MEGA All Species
Tropical Fish Auction

New Members

Barry Naroff, Alexandr Vinnitskaya, Robert Weeks,
Eric Wilson, Julio Liriano, Chase Kirshner,
Oksana Tuman, Tyler Kohring, Joseph Lauro

Donations – Thank You!

Individuals for Sept—Nov. 2023

Bill Amely
Tomasz Lis
Lita Goldberg
Dan Smith
Don Lang
Scott Peters
Samuel Velez
Alexandr Vinnitsky
Al Turco
Liz Puello
Nick DeCillis
Gene Kogan
Oksana Tuman

Michael Gallo
Dan Puleo
Victoria Silverstein
David Manuel
Steve Matassa
Marshall Sherman
Jeral Matos
Frank Turco
Michael Weiner
Rob Kolsky

Stores/Mfg

All in 1 Petshop, Brooklyn, NY
Monster Aquarium, Queens, NY
Pacific Aquarium, 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.

Tip of the Season

During the winter, the heating of your home will evaporate water in your tanks faster than in the summer. Keep an eye on the water level in your tanks; to make sure they're at the proper level. This is particularly important with marine setups. Water evaporates but the salt does not, driving up the salinity of the water.

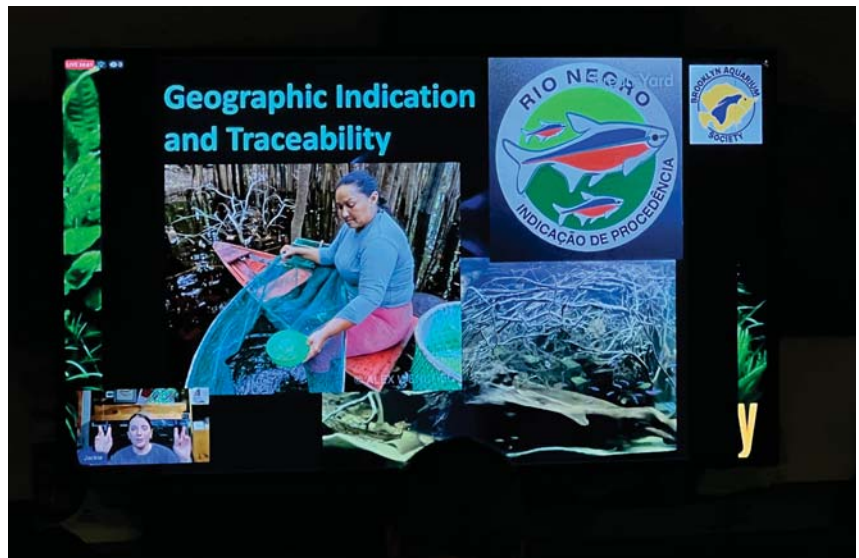
Freshwater tanks should be kept at a consistent level to make sure the filter system works properly and heaters are not exposed to the air. If there is insufficient water level the filter will stop and possibly break and the heater coil, if exposed, could crack the glass. This could be dangerous to both you and your fish.

Current NEC affiliate clubs

If someone wants to travel, they can visit another club. Here's a list of the clubs.

- | | |
|---|--|
| Aquarium Society of Lancaster | Norwalk Aquarium Society |
| Boston Aquarium Society | Nassau County Aquarium Society |
| Brooklyn Aquarium Society | New England Cichlid Assoc |
| Bucks County Aquarium Society | New England Fancy Guppy Assoc |
| Capital Cichlid Association | North East Live bearers Assoc |
| Cichlid Club of NY | North Jersey Aquarium Society |
| Central New York Aquarium Society | Otter Valley Aquarium Society |
| Danbury Area Aquarium Society | Pioneer Valley Aquarium Society |
| Diamond State Aquarium Society | Pioneer Valley Water Garden & koi |
| Erie Aquarium Society | South Jersey Guppy Group |
| Greater City Aquarium Society | Southern New England killifish Assoc |
| Jersey Shore Aquarium Society | Tropical Fish Club of Burlington |
| Koi Organization International | Tropical Fish Society of Rhode Island |
| Long Island Killi Assoc | Upstate NY killifish Assoc |
| Long Island Aquarium Society | Worcester Aquarium Society |
| Metropolitan Area killifish Assoc. | |

The last few meetings at NYA!



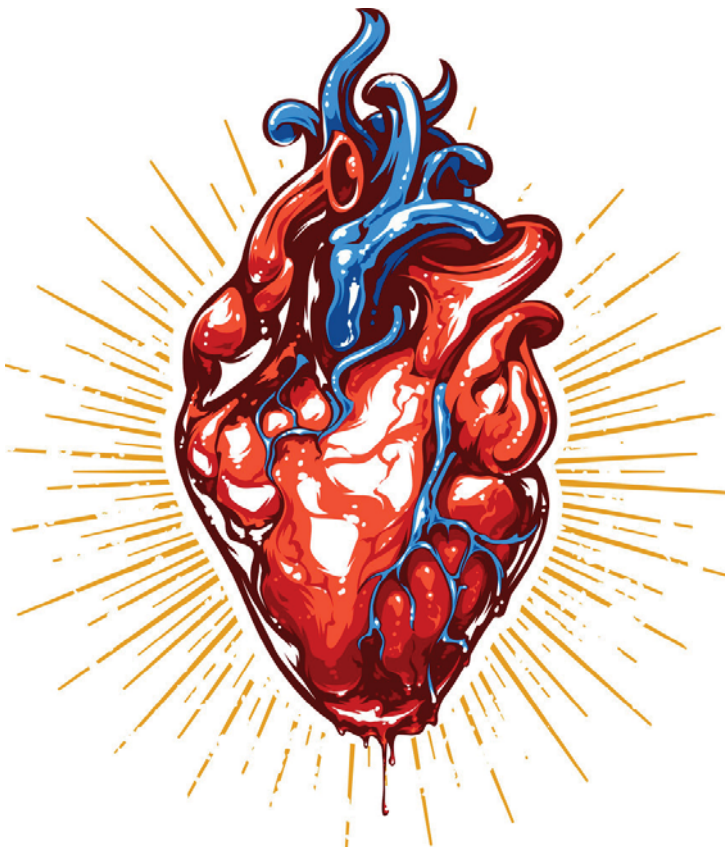


John Todaro was a past president of BAS and editor of the Bulletin and Aquatica Magazine for decades. We are republishing recipes from the Brooklyn Aquarium Society's publication SCRUMPTIOUS MEALS & LIVE FOOD TREATS compiled, edited and written by John.

Classic Beef Heart Recipe

This version of the all time classic beef heart recipe comes from Gene Baudier of the East Coast Guppy Association. This is one of the staple foods he feeds his guppies, who eat it with gusto. A great paste food for any fish that thrives on or needs a diet high in protein.

This is one of the most flexible recipes around. You can add veggies or baby cereal, extra vitamins, fish, shrimp or commercially prepared fish foods to enhance the basic recipe and make it your own.



INGREDIENTS:

- 1–2 lbs. beef heart, uncooked
- Spirulina powder
- 1 tbsp per pound of meat
- Liquid vitamins
- 1 ml per pound of meat
- (1 ml. = 20 drops)

PREPARATION:

1. Trim beef heart of allfat, veins and tough outer skin.
2. Cut into 1 inch cubes.
3. Combine ingredients in food processor, processing for about 1 minute. Check after 30 seconds. Adjust to bring particles down to 1/16 to 1/8 inches. Be careful not to liquefy mixture.
4. Spoon ingredients into ice cub trays and freeze.

FEEDING:

Grate frozen cubes into a cup. A revolving-drum type grater like a Mouli works great. Feed by spooning small portions into the tank. Just about anything could be added to this recipe, but keep in mind that the more you add, the less beef heart by proportion is in the final mixture.

Never feed more than fish will eat in 5 to 10 minutes.



Purchasing Bettas Online

Female Koi Betta

Bill Amely — BAS

Needless to say, I love Bettas. I have been in the fish keeping hobby for almost 50 years. My interest in Bettas started somewhere in the late 1990's. Their great varieties of colors and fin shapes, and their behaviors, is what drew me in.

Most of them I purchased at my local pet store, or at an auction held by my local fish club (or Aquarium Society). Generally, you can find what you're looking for in these two sources.

But about 3 or 4 years ago, I began to shop online, via auction sites such as Aquabid and Ebay. The only reasons one should use these is to acquire wild Bettas species (*B. Macrostoma*, *B. Coccina* or *B. Imbellis*), which are a bit harder to find in your local Pet store or Fish club. The other is that maybe the color or fin variant you desire is not available in the first two sources.

Some sellers may utilize auctions to sell their fish. They can also utilize a flat "BUY IT NOW" price, which will vary per seller, and their

livestock. Most may be US sellers, where they will charge a flat shipping fee, for either Priority Mail, or Express Mail (you will also be charged sales tax, by the auction sites, so keep these factors in mind when you're deciding to shop this way).

A number of sellers will be Foreign, like The UK, Asia, etc. I have purchased several, via Ebay, from a seller in Thailand. In addition to the price of the fish, I paid an export fee of \$5 per fish. The fish will then be shipped to a transshipper, located in the US. I use one located in New Jersey. The foreign sellers will NOT ship to you directly. Once the Transhipper receives them, he contacted me that he received them. I then pay him a \$3 per fish import fee plus \$28 for UPS one day shipping.

I tend to buy between 3 to 9 Bettas at once, which lowers the overall cost per fish. Keep these costs in mind, when deciding if you wish



Male Koi Plakat



Female Koi Halfmoon female



A Koi Male Plakat

to go this route, or not. The reason I went this way was the beautiful color and fin variants he offered on Ebay. I hope to provide photos of these fish in the foreseeable future. I purchased mostly Plakats (shortfin wild type male Bettas). I also picked up two female Koi halfmoon Bettas. While Koi Bettas are available locally, I was

wowed by the ones I purchased from the Thai seller.

If you are in the market for beautiful Bettas, research all your options before you buy them. Thanks for your attention, and happy fishkeeping to all!

DIY — Floating Planters

David Manuel — BAS



You can do it!

This tip is for those that want to add a little green to their aquascape. I've use this method to grow herbs and other non-aquatic plants to my home aquarium. The best part is — it cost about \$2 and the price of the plant of your choice to get started.

To get going, here are a few things you'll need:

- Scissors
- Pool noodle
- Cotton balls or aquarium filter floss

Plant of choice

Now keep in mind, you need to be familiar with the care requirements of the plant you intend to use because some plants don't like excessive water. Plants like pothos, mint or peace lilies do very well in the aquarium. You also need to take under consideration whether you have an aquarium cover that leaves room for the plants to float above the waters surface. If using a glass cover, you may need to lower the water level to give space for the plants to grow above the water surface. You can learn about the plants water and



To get going, here are a few things you'll need:

- Scissors
- Pool noodle
- Cotton balls or aquarium filter floss

care requirements from a local garden supply store or nursery.

The first step is to cut a 1 inch to two inch cutting of your plant of choice. In this instance I'm using a mint plant. Remove the lower portion of leaves so you only have about 3 to four top leaves on the stem. This lower area will be in contact with the water and allow for root growth.

The second step is to cut a 1 inch diameter from the pool noodle. This should look like a little donut. Depending on the plant you decided on, you can cut a large diameter in order for it to support the weight of the plant cutting. Next you pack the filter floss into the center of the pool noodle donut.

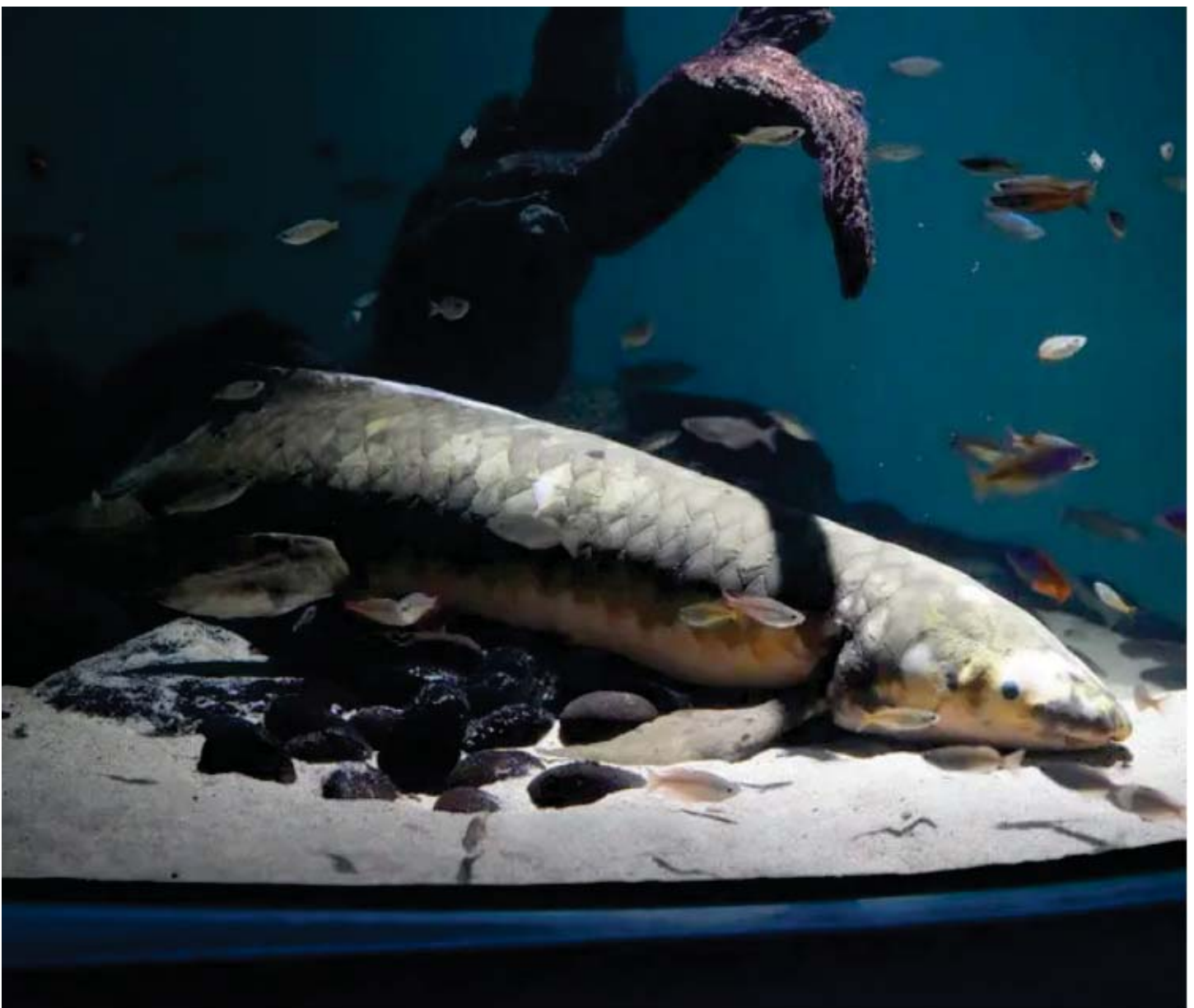
The last step is to insert the cutting into the center of the filter floss so the bare stem sticks out the bottom as shown in image above.

And that's it. You're ready to float the plant in your tank or pond. This technique is great for sharing plants or just getting multiple plants from one large one. You can also place the cutting into a plastic cup near a sunny window. Pothos is an excellent plant for the home aquarium and easy to share with friends. I hope this gets you going green and better yet, experimenting with different plants. Your fish will thank you!

Soumya Karlamangla — New York Times • Sept. 18, 2023

Meet Methuselah, the World's Oldest Living Aquarium Fish

The nonagenarian lungfish has lived in a tank in Golden Gate Park in San Francisco since 1938.



Methuselah, an Australian lungfish, in her tank at the Steinhart Aquarium at the California Academy of Sciences in San Francisco. Credit: Jim Wilson/The New York Times



Methuselah being fed. Credit: Jim Wilson/The New York Times

In the fall of 1938, the Golden Gate Bridge had been open for a year, the United States was still recovering from the Great Depression and Franklin D. Roosevelt was in his second term as president. World War II had yet to begin.

And in the cargo hold of a steamship, a young lungfish arrived from Australia to a new home at an aquarium in San Francisco.

She's still alive today.

In a delightful piece of California trivia, what

is believed to be the world's oldest fish in human care can be found in Golden Gate Park, at the Steinhart Aquarium of the California Academy of Sciences.

I recently met Methuselah, as the fish is known, and can attest that she's a particularly charming celebrity.

With a torpedo-shaped body covered in mossy green scales, she glides through her tank at a glacial pace that seems only appropriate for her

advanced age. She pokes her flattened snout out of the water when her caretaker offers prawns, earthworms or her favorite food, figs. She eats out of humans' hands, and sometimes even enjoys a gentle belly rub or a tickle on her chin.

"She's a pretty content, happy fish, I'm going to say," Brenda Melton, the aquarium's director of animal care and well-being, told me. "She's been around a long time. She's seen more than any of us at Steinhart Aquarium. We're lucky to have her."

The staff knew the date when Methuselah arrived at the aquarium, so it's been clear for years that she was at least an octogenarian. And she assumed the unofficial title of world's oldest aquarium fish in 2017 when Granddad, another Australian lungfish, died at the Shedd Aquarium in Chicago at age 95.

But it's only recently that a scientific analysis of Methuselah's full age has been performed, because traditional methods for doing that are invasive and for the most part feasible only post-mortem. Using a new DNA-dating technique, though, Australian scientists tested a tiny sample of one of Methuselah's fins and concluded that she's probably about 92, with an upper estimate of 101. The results are being officially released today.

The news is especially meaningful for its timing: This month, the aquarium turns 100, so its most beloved fish might well "be celebrating her centennial birthday along with Steinhart," Melton told me. (If you're interested, there are a bunch of events around San Francisco in September in honor of the aquarium's milestone.)

The Australian scientists, who plan to publish their full findings later this year, studied samples from 30 other lungfish living at institutions in the United States and Australia. Steinhart's two other lungfish were found to be about 54 and 50 years old.

"I don't know that we truly know how long they can live," Kylie Lev, a curator at the aquarium, told me as we peered

through the glass, watching the younger two lungfish flap their fins as they swam through their tank. Bowhead whales, rougheye rockfish and some giant tortoises can live for roughly 200 years, but even so, lungfish probably rank among the longest-living species in the world.

And they're unusual. They are native to only a handful of slow-moving rivers in Queensland and, as their name suggests, have a lung that allows them to supplement the oxygen they get through their gills.

Lungfish are primitive creatures that have been around for 380 million years and are the closest living relatives to the first fishes that crawled out of the sea. In other words, lungfish represent the evolutionary link between fish and amphibians. Steinhart staff members call them living fossils.

Methuselah may not be quite as old as the biblical figure Methuselah — Noah's grandfather, who lived for 969 years — but in many ways, she is truly ancient.



A young visitor watching Methuselah in its tank.
Credit: Jim Wilson/The New York Times

Meet My Tank!

Liz Puello — BAS



This is the tank that Liz won from BAS for aquarium of the month on BAS Facebook page!

How long have you been in the hobby?

I've been in the hobby since I can remember. First in the Dominican Republic with my father, where we had two ponds, one with kois, gold fish, angels and plecos; and another with tilapia and 15 turtles. We also had a 100-gallon salt water tank with a moray eel, shrimps and clown fish. But here in New York I've been keeping fish since 2010.

How many tanks do you have?

Eight; with the occasional plastic sterilite 7.5-gallon bucket that I use as hospital tank.

How many gallons each tank?

55, 40, 29, 20, and 2 10 gallon tanks, 6 gallon.

Freshwater or saltwater?

Freshwater.

Types of fish?

I currently have a small school (9) of Black Neon tetras, and a Gold Cloud Mountain Minnow. I just lost some fish a few weeks ago. I am a huge fan of nano species.

What do you feed them?

I feed them flakes, freeze dried brine shrimp sinking and carnivore pellets as well as frozen live food.

Do you have live plants?

All the tanks are planted!



29 gallons with teras, kuhli loach, dwarf gourami and hillstream loach.

Latest 10 gallon set up.



This tank won Liiz a new tank.



6 gallon with one female betta.

Joe Graffagnino was a past president of BAS as well as an accomplished breeder. He passed away from Covid in September 2021. He left behind a substantial archive of his aquatic experiences which we are republishing.

Corydoras stenocephalus

Joe Graffagnino — BAS

I RECEIVED A GROUP OF five fish (two females and 4 males) from a friend in the North Jersey Aquarium Society on September 21, 2014. I placed the group in a 10 gallon tank with riverbed gravel (#3), some java moss and a small corner filter. The temperature was 75 degrees Fahrenheit (24 degrees C), with a pH of 7.0. I did not check for water hardness. The group had spawned for my friend more than once.

They were fed twice each day with the first feeding in late morning/early afternoon of flake food and in the evening with frozen blood worms. On October, 23 the cory's laid eggs on both of the long glass piece sides with small amounts of eggs on both the front and rear short glass panels. I removed the eggs with a razor blade and placed them in a shallow plastic tray with an aerstone and acriflavin. After the first day I changed the water in the container by 60% with water from the parent's tank. The next day I did a 50% water change using water from my faucet at approximately the same temperature. I siphoned out any fungused eggs. On the third day, October 26, the eggs started to hatch. I moved the hatched fry to a five gallon tank with the water from the parent's tank. When the fry's egg sack was absorbed, after four days, I fed the fry frozen baby brine shrimp twice daily. I did 50% water changes every other day using water from my faucet at approximately the same temperature. After three to four weeks the fry were large enough to move into a 12 gallon grow out tank.

On November 28, the *Corydoras stenocephalus* started another spawn in their 10 gallon tank. I witnessed the spawn and took detailed notes as well as photographs. This spawn was 38 days after their last. The water temperature was 78 degrees Fahrenheit (26 degrees C) and the pH was 7.18. They began their spawn at 8:40 PM and it continued until 12:50 AM (4 hours and 10 minutes). While the spawn took place I inserted a pH monitor tube and they laid eggs on the tube! The eggs



started to hatch on December 1, 2014 at 11:50 PM.

On December 17 one female and several males started to spawn again. When completed they had laid 30 eggs. Five days later (December 22) they started to spawn again. I was not sure if it was both females. I counted over 100 eggs when the spawn was complete. On December 25 the eggs started to hatch.

I had bred different types of *Corydoras* species previously; specifically *Corydoras aneus* and *Scleromystax barbatus*. I noticed something different in the manner of egg fertilization with *C. stenocephalus*. The males were excited and continued to chase the much larger females, but they didn't follow the egg trail laid by the female. The males visually checked the eggs but stayed with the female. Occasionally the female and one male would be on the gravel and the male would turn his body and curl himself so that he was almost lying on his side with his abdomen facing the female. She would then go to his stomach area. I could see that she was taking something because her gills were pumping at a fast rate. She would then leave the male, go up approximately 75% of the glass side, and start laying eggs again. Then she would stop and return to where she started that egg trail and mouth each egg without removing it from the glass. I believe that the female took the milt from a willing male into her mouth and then applied the milt to the egg for fertilization. Perhaps this was why each time I had an 85-90% fertile egg count.

Reprinted with permission from The Aquatic Gardener, the Journal of the Aquatic Gardeners Association.



AN IWAGUMI LAYOUT PRODUCED WITH A SIMPLE PLANT ARRANGEMENT USING SANSUI STONES

by Aqua Design Amano

Translated by Tomoko Schum Photos by Aqua Design Amano

The presence of stones influences the overall impression of an iwagumi layout greatly. Sansui Stones used in this layout have the characteristic appearance of stacked stone slabs and fine surface texture. The planting is kept simple using only short aquatic plants to make the most of the presence of the stones. This

article introduces undergrowth plants that are essential to iwagumi layouts and other Nature Aquarium layouts along with the production process of the aquascape in this issue.

Since the 60 cm aquarium is relatively small, it limits the size of the stones used for a layout. Sansui Stones with somewhat



TANK DATA

Aquarium:	Cube Garden W60 x D30 x H36 (cm)	Aeration:	14 hours after the light is turned off using Lily Pipe P-2
Lighting:	Aquasky RGB x 1 unit, turned on for 10 hours per day	Additives:	Brighty K, Green Brighty Iron
Filter:	Super Jet Filter ES-600 (Bio Rio, NA Carbon)	Water Change:	1/3 once a week
Substrate:	Aqua Soil Amazonia, Power Sand Basic S, Bacter 100, Clear Super, Tourmaline BC	Water Quality:	Temperature: 25°C (77°F) pH: 6.8; TH: 20 mg/l
CO₂:	Pollen Glass Series, 3 bubbles per second via CO ₂ Glass Counter (using Tower)	Aquatic Plants:	<i>Helanthium tenellum</i> <i>Glossostigma elatinoides</i> <i>Riccia fluitans</i> <i>Fontinalis antipyretica</i>
		Fish:	<i>Hemigrammus armstrongi</i> <i>Otocinclus</i> sp. <i>Caridina multidentata</i>

pointy shapes were selected and radially arranged around Oyaishi. Soil was mounded high behind the stone arrangement to produce a powerful appearance.

Helanthium tenellum is planted behind the stone arrangement. Small Riccia Stones to which a mixture of Riccia and Willow Moss

are attached are placed in the foreground. Planting *Glossostigma elatinooides* among the Riccia Stones produced a natural appearance of three types of aquatic plants growing together in the foreground.

Helanthium tenellum is planted not only behind the stone arrangement



< An Iwagumi layout that makes the most of Sansui Stone shapes.



< A simple plant arrangement to enhance the Sansui Stones' presence.



< The natural appearance produced by undergrowth plants growing around the stone arrangement.

but also between the stones. Since *Helanthium tenellum* spreads by runners, it ties the background to the foreground naturally. The bright green aquatic plants go well with the color of Sansui Stones and give a refreshing impression to the Iwagumi layout.

**UNDERGROWTH PLANTS
USED FREQUENTLY IN NATURE
AQUARIUM**

Hemianthus callitrichoides
Perfect for the use in small
aquariums and creating

small features around stone
arrangements. Since it grows
slowly and is somewhat difficult to
grow, an extra amount of it should
be planted at the initial planting
stage. This plant should be planted
somewhat deeper using powder
type Aqua Soil.

Micranthemum sp.
A plant in the family of Pearl Grass.
It grows fast and produces a green
carpet by spreading sideways.
It has larger leaves than Cuba
Pearl Grass and is easy to grow
unlike Cuba Pearl Grass. Since it



^ *Hemianthus callitrichoides.*



^ *Utricularia graminifolia.*

v *Micranthemum sp.*

v *Hydrocotyle tripartita.*



a Riccia Stone using Riccia Line and then the wrapped stones are placed side by side in a layout. Although it requires high light and an ample CO₂ level, the sight of the plant adorned with a myriad of oxygen bubbles produced through photosynthesis is impressive.

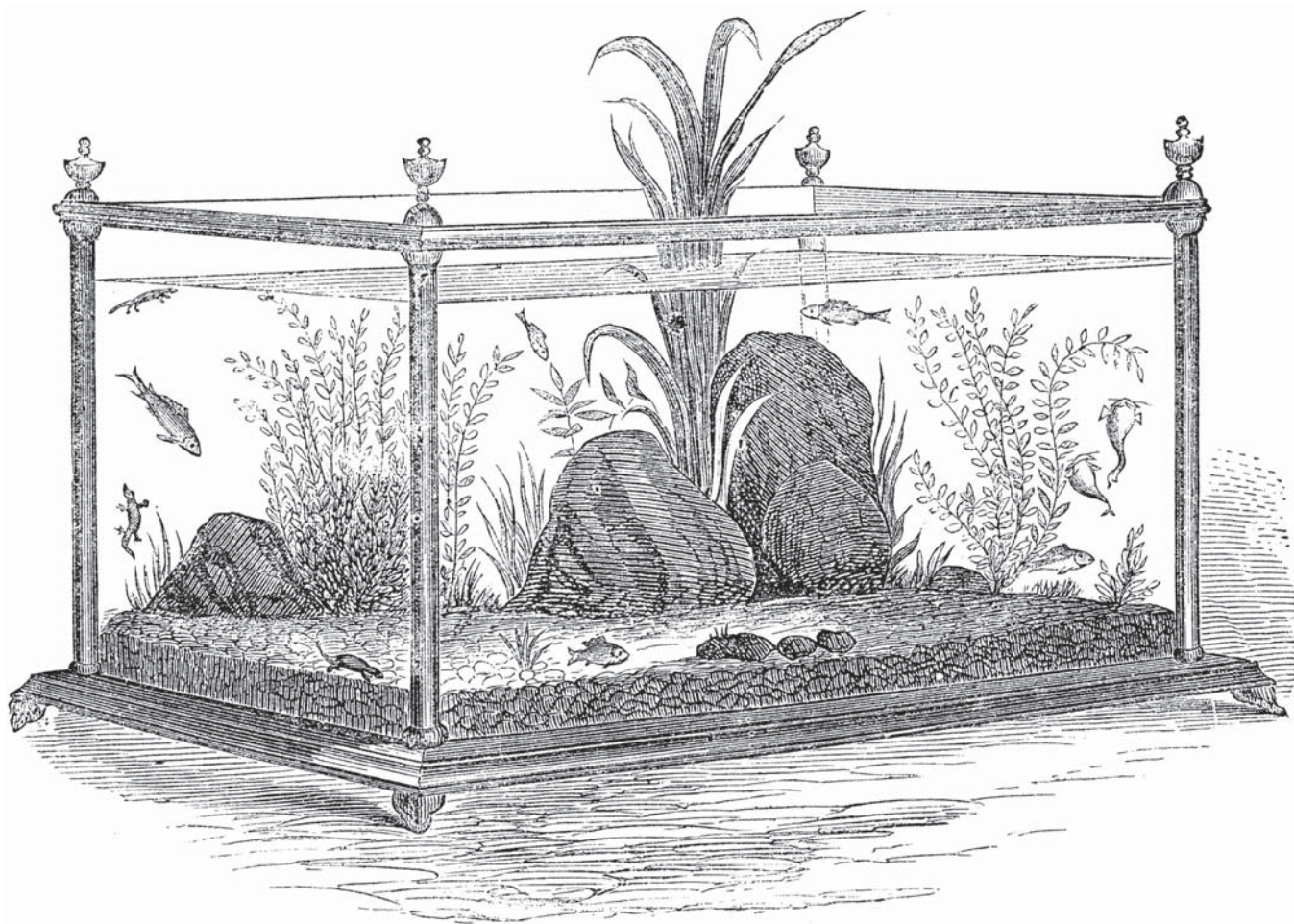
Eleocharis acicularis

The height of this plant varies every time it is used in a layout. It is not clear if it is due to the difference in the shipping condition or the growing condition. However, it is possible to keep its length short through repeated trimming. Although the plant is inexpensive and easy to acquire, it declines quickly

unless the growing condition is properly adjusted.

Eleocharis parvula

It would be better to use this short hairgrass, rather than the *Eleocharis acicularis* previously discussed, if you want to maintain the plant short. Although it is difficult to differentiate the emerged grown leaves and the submersed grown leaves, the plant will grow denser if trimmed when the submersed grown leaves start to develop. When the leaves become too dense and sludge builds up due to poor water flow, algae tend to attach to the leaves. 🌀



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, Bloomington, IL 61704. Visit the Aquarium Shrimp Forum <http://theshrmpfarm.com/forum/index.php> to ask questions, talk to other shrimp nuts and discuss everything related to Freshwater Aquarium Shrimp.



The Difference Between Caridina and Neocaridina Shrimp

A common issue for new shrimp keepers is trying to figure out the difference between Caridina Shrimp and Neocaridina Shrimp. Freshwater aquarium shrimp come in multiple species types, however Neocaridina caridina are the two most common shrimp for sale.

Neocaridina shrimp are types like the Red Cherry Shrimp, Blue Dream Shrimp, or Snowball Shrimp.

Caridina shrimp are types such as Crystal Red Shrimp or Blue Bolt Shrimp.

Interestingly enough there is more to it that meets the eye literally.

Most freshwater shrimp keepers think the main differences was rostrum length. It has become apparent that this can vary drastically from each sub species of Shrimp. For this very reason rostrum length cannot be a viable means of identification.

To the naked eye there are no differences between the species other than the rostrum length as noted above. To see the only two differences between Caridina and Neocardina freshwater shrimp you have to dive in to the macro world. These are dwarf shrimp after all! We can't expect them to be large, right?

The first major difference is the shape and size of the reproductive appendage. This is a modified

swimming leg, it is the first set in a swimming pair called Pleopods.

On Neocaridina the end of the appendage is called the Endopod also referred to as Endopodite. Which is the inner branch of the crustacean's limbs, it is round and flat. It is almost like someone is holding a table tennis bat.

The end of the Caridina species appendage (Endopod) is longer but more slender than that of the Neocaridina.

This is likely the reason the two cannot inter breed, their "parts" simply put, do not fit together.

The other difference between the species is a small part on the first Maxilliped (body appendage), in most but not all Caridina species there is a small spur, almost like a finger (Endopod). This is something that is completely missing from Neocaridina.

Freshwater Shrimp Breeding

Breeding the neocaridina shrimp is considered to be an easy task by most. Proper water conditions along with aquarium plants, high quality pellet foods/blanched vegetables will help your shrimp tank of neocaridina breed readily. Live plants add a huge benefit to breeding. Live plants provide micro-organisms

for the baby shrimp and adult shrimp to happily eat on. Often times shrimp pellets food are not enough to keep the baby shrimp alive. This is why planted tank setups are ideal for most shrimp.

Caridina shrimp breeding is also not difficult but more so than their counterpart neocaridina shrimp. They require soft water and PH below 7.0 to truly thrive and breed higher grades.

In general terms breeding either neocaridina caridina shrimp is not hard. Things to consider are tank size, other livestock in the community tank who might prey on the shrimp. Shrimp love to eat algae so a having a good natural supply in your tank aids them.

Red cherry shrimp care or bee shrimp care is overall a low demanding task. This is if you have proper equipment, and knowledge on their care. Breeding bright red high grade cherry shrimp in your red cherry shrimp tank is very achievable. Cherry Shrimp are often considered beginner shrimp due to their ease

We offer complete guides on how to breed and care for shrimp on our Shrimp Farm University Blog. We even include more challenging types to breed like the Amano Shrimp or Ghost Shrimp. Amano shrimp and ghost shrimp at a certain stage demand brackish water for their baby shrimp. This is what presents a challenge to get

the baby shrimp to survive in the correct water parameters. Our detailed article will explain PH levels, water temperature, test kits needed, food source, sponge filters, and other things these algae eaters need to breed.

Aquarium Heaters

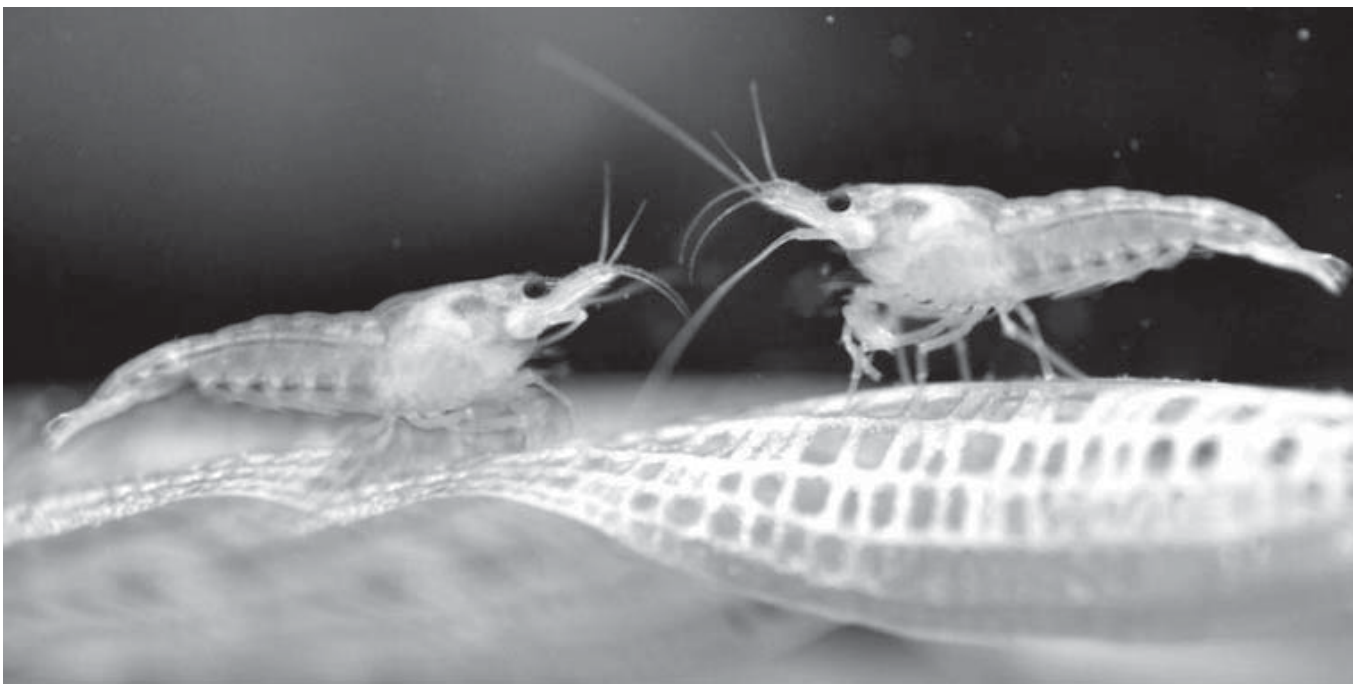
The heaters fail quite regularly in the aquarium hobby. An improper heating device can cause death in shrimp. Heater failure is usually triggered at a position where the heat is extreme and the tank overheats. This causes shrimp to die. It is generally recommended to not use heaters in shrimp tanks if you room temperature stays between 65-75 degrees.

Cannot Cross Breed Neocaridina to Caridina Shrimp

Taking away from this article is the fact that neocairidna and caridina simply cannot physically crossbreed. Thus, it is a nonissue when keeping them as tank mates. Keeping them as tank mates requires they be kept in caridina parameters. More on this at our Shrimp Farm University Blog Page.

Happy Shrimp Keeping!

—Mark Peggie



BROOKLYN AQUARIUM SOCIETY PRESENTS

THE JOHN TODARO MEMORIAL WRITING PROGRAM

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.

THE ANNUAL PRIZES ARE:

(paid in BAS Bucks)

1st Prize
\$50

2nd Prize
\$25

3rd Prize
\$10



SHIRTS, HATS & PATCHES

BAS T-SHIRTS

SMALL TO XL \$10 EACH

PRICE VARIES ON XXL & LARGER SIZES

Historic Brooklyn Aquarium Society logo in gold on navy blue short sleeve T-shirt. White lettering states the society's mission...

Educating Aquarists Since 1911



OFFICIAL CAP.
Blue with embroidered gold BAS insignia.
One size fits all.
\$10 each

OFFICIAL BAS embroidered patches that can easily be ironed onto any shirt, hat, jacket or article of clothing you wish.
Only **\$4** each



Get to know our sponsors

Our local aquarium shops are important friends of the fishkeeping hobby. They're here to serve your immediate needs - medications, live foods, or a replacement part for a filter, and best of all, you can inspect the fish you want to buy in person, plus most shops will special order fish for you.

MOST GIVE BAS MEMBERS DISCOUNTS.

BROOKLYN PET SUPPLY

8403 5 Ave. Brooklyn, NY 11209
Store 718-680-0700
Jerry/Diane Fishman
917-414-4185 / 917-575-5551
Spookie11209@yahoo.com

AQUA ULTRAVIOLET has designed solutions that provide cutting edge technology and efficiency to our users. They proudly offer innovative new products striving to make technology simple for all of their customers, distributors, dealers and consumers alike. For over three decades Aqua Ultraviolet has been the premier manufacturer of ultraviolet sterilizers and bio-mechanical filtration. info@AquaUV.com; US: (800) 454-2725
INTL: 011 1 (951) 296 3480

MARINE DEPOT wants to help you build a better aquarium. You can earn rewards for every purchase with over 3,875 items to choose from. You can TAKE ADVANTAGE of their special financing offers and ongoing sales and specials. Marine Depot is happy to welcome new members. REFER YOUR FRIENDS — GIVE \$10 — GET \$10. It's Easy! Here's How It Works:

1. Just go to www.marinedepot.com and click on the REFER A FRIEND GET \$10 OFF button for information.
 2. Your friends get a coupon for \$10 off their 1st order
 3. You get \$10 (1000 points) when your friends place their 1st order.
- www.marinedepot.com
1-714-385-0080

DISCUSGUY.COM, Discus Fish Store where we have high quality Discus fish for sale at wholesale prices delivered direct to your door. I have been raising and breeding discus for over 20 years providing customers and pet stores with excellent service and unbeatable prices on discus fish. If you have any questions about discus or if you are interested in a specific strain of discus that you don't see in my store, please contact me and I will get back to you as soon as possible. WWW.DISCUSGUY.COM

AMAZONAS - The legendary freshwater aquarium magazine is now in English. This is a great publication. If you keep freshwater fish, you should subscribe. Only \$29 for 6 issues, and well worth it. **CORAL** - The reef & marine aquarium magazine is a fabulous magazine for reef and marine fish enthusiasts. \$37 for 6 information packed issue. For more information go to WWW.AMAZONASMAGAZINE.COM

ABSOLUTELY FISH'S staff is knowledgeable and can help you solve your aquatic problems. They offer a 15% discount on select fish, marine life & supplies when you present your current BAS membership card. A really great aquatic shop and well worth the trip. Make a day of it! ABSOLUTELY FISH 1080 Route 46 West, Clifton, NJ 07013

Ph: 1 (973) 365-0200 Open 7 days a week:

Mon - Fri 12AM - 9PM Sat 12AM - 8PM Sun 12AM - 5PM

MANHATTAN AQUARIUMS has one of the largest selections of marine fish & corals on the east coast. You should check them out for your Marine Fish & Coral needs. BAS members get a 10% discount with a current membership card.

MANHATTAN AQUARIUMS

522 West 37th Street, NYC, NY 10018

Ph: 212 594-2272 • Fax: 212 594-2271

www.ManhattanAquariums.Com www.UniqueCorals.Com

MONSTER AQUARIUM INC. Specializing in exotic freshwater fish, plants & special orders plus a full range of dry goods & fish foods and filter repairs, plus they do set ups & tank maintenance.

(freshwater only). They offer BAS members 10% discount on all in store items, does not apply to special orders. They're open 7 days a week from 10am to 8pm for all your aquarium needs.

MONSTER AQUARIUM INC. 131-08 40th Road, Flushing, NY

11354 Ph: 347.732.0373

MONSTERAQUARIUM@HOTMAIL.COM

CARIBSEA - From marine and reef community aquariums, African cichlid aquariums to planted aquarium substrate you can count on Caribsea. Trusted by hobbyists and professionals alike since 1972. They have 280 products to help make you a better hobbyist. Go to their website to download their latest catalog or product flyers, videos and directions or to contact them with questions at WWW.CARIBSEA.COM

CENTRAL AQUATICS has been generous in its donations from its Aqueon and Coralife brands to the BAS, and now they have joined the BAS family of sponsors. **Aqueon - It's all about the fish** - Developed by true aquatic hobbyists and focused on products that will make your life easier when keeping an aquarium.

Coralife - Beyond the basics! All-inclusive aquariums and a complete range of lighting and equipment that meet the needs of advanced hobbyists. You can learn more about their products at the following websites:

aqueonproducts.com & coralifeproducts.com

1-888 - 255 - 4527

**JOSEPH S. REISMAN & ASSOC.
ACCOUNTING & TAX EXPERTS.**

They specialize in aquarium societies, aquarium hobbyists, aquarium retail suppliers and stores and aquarium wholesale suppliers. They offer a **10% discount to Brooklyn Aquarium members with a valid membership card.**

Ph: 718-332-1040 • Fax: 800-518-5251 or
www.TAXHELP1040.COM

TROPICAL FISH HOBBYIST MAGAZINE has helped aquarists succeed in fish keeping for 64 years. Every serious hobbyist should subscribe to TFH. Now a bi-monthly, they offer a special subscription deal: buy 6 issues and get 3 Free.

Use promo Code VIP to get the deal.
tfhmagazine.com/subscriptions 1-888-859-9034

PACIFIC AQUARIUM in Manhattan’s Chinatown carries ornamental goldfish, koi, freshwater fish, & aquatic plants. BAS members get 10% discount with current membership card (Discounts not to be combined with other specials). They have a full line of aquarium supplies, and you can order custom size tanks.

PACIFIC AQUARIUM 46 Delancey St., NY, NY 10002
Ph: 1 (212) 995-5895
Open 7 days a week and all holidays 10AM to 7:30PM

ZOOMED AQUARIUM LED HO -

Energy efficient LED Aquarium lighting with a low profile design!

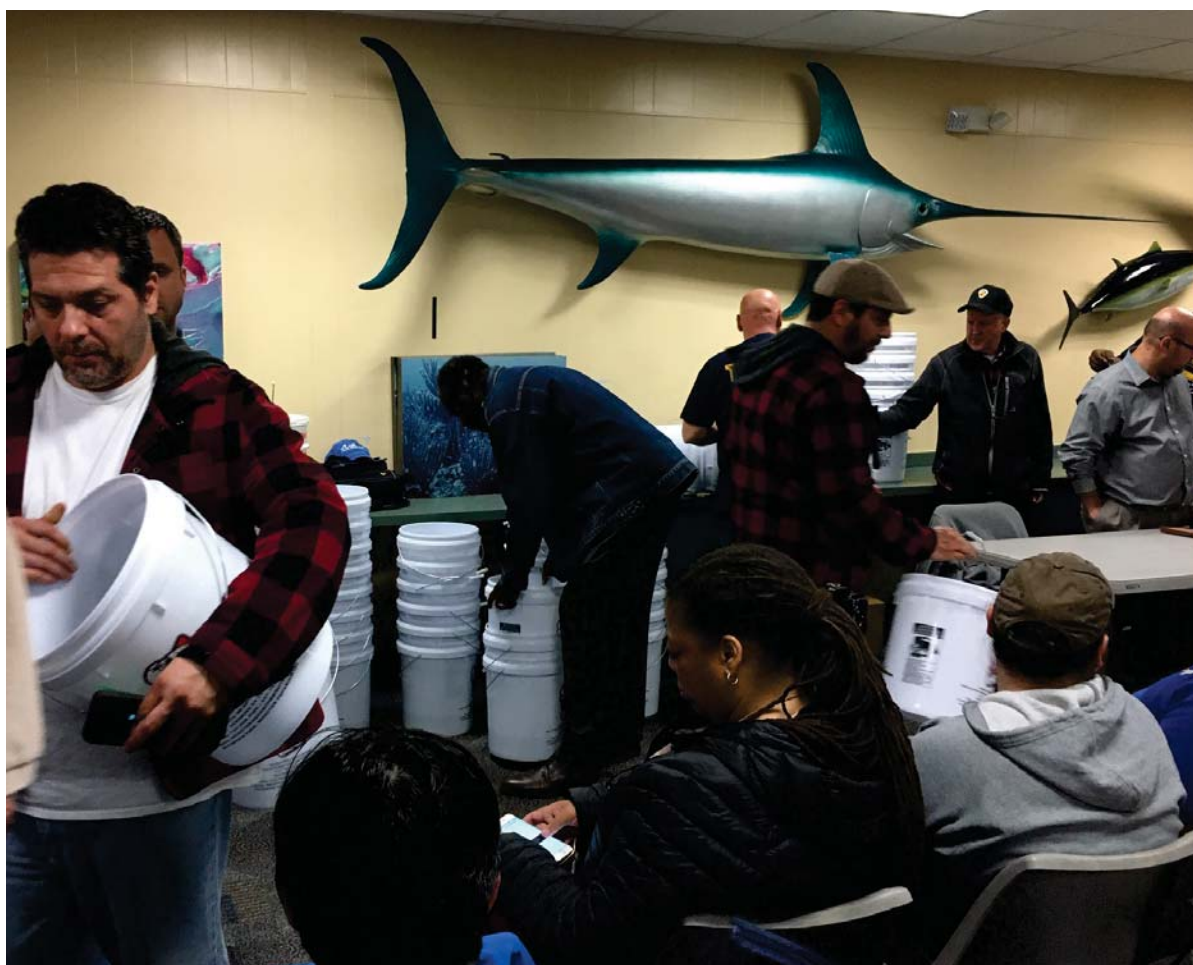
- Unique modular design allows for replacing or swapping out LED panels.
- 50% brighter than T5 HO fluorescent lamps.
- More LEDs than comparable hoods on the market = more light!
- Shimmer effect: Bright white light produces shimmer, just like in nature.

Find out more about it and other ZooMed aquatic products at WWW.ZOOMED.COM

REEF NUTRITION Inc.

Advanced Fish Feeds not only include natural, colorenhancing ingredients, they provide the highest quality nutrition and the least waste, resulting in a cleaner tank. Their high quality feeds are made using proprietary processes developed by their parent company, Reed Mariculture, a world leader in the development of algae — and zooplankton — based feeds.

Reef Nutrition – We Feed Your Reef. See your fave LFS for Reef Nutrition products with the purest & most natural feeds on the market. For more info. go to WWW.REEFNUTRITION.COM



Our Sponsors Support Us! We Must Support Them! Tell Them You Saw Their Ad In the AquaticNews

We are happy to welcome
a new sponsors to
the BAS family

AQUA
ULTRAVIOLET

Since 1975, Aqua Ultraviolet has designed solutions that provide cutting edge technology and efficiency to our users. We proudly offer for aquariums and ponds UV Sterilization and Bio-mechanical Filtration Systems. Aqua Ultraviolet also provides superior customer service.

Visit us online at
info@aquauv.com

US: (800) 454-2725
INTL: 011 1 (951) 296 3480

BROOKLYN



PET SUPPLY 10% off!

BROOKLYN PET SUPPLY
8403 5th Ave.
Brooklyn, NY 11209

Store 718-680-0700
Jerry & Diane Fishman

Spookie11209@yahoo.com



Go Wild Peru

Guided Nature Adventures
www.gowildperu.com

Manhattan Aquariums

One of the Largest Selections of Marine Fish & Corals on the East Coast

522 West 37th Street
NYC, NY 10018

10% DISCOUNT FOR MEMBERS

Phone: 212 594-2272 Ext. 5
Fax: 212 594-2271
Cell: 347-782-2407

www.ManhattanAquariums.Com
www.UniqueCorals.Com

WWW.DISCUSGUY.COM

Wholesale Discus Fish Shipped to Your Door.



Discus Guy



Build a Better Aquarium with Marine Depot

Earn Rewards for every purchase with over 3875 items to choose from

Take advantage of our special Financing Offers and ongoing sales and specials.

Visit www.marinedepot.com for more information.

1-714-385-0080
www.marinedepot.com

Our Sponsors Support Us!
 We Must Support Them!
 Tell Them You Saw Their Ad
 In the AquaticNews



AWARDED BEST AQUATIC PET RETAILER IN NORTH AMERICA FOR THE YEAR 2013 BY PET PRODUCTS NEWS

Absolutely Fish

BAS MEMBERS GET A 15% DISCOUNT

Freshwater Fish:
 Over 120 tanks filled with common & hard to find tropical, cichlid & cichlids.
Specialized aquatic plant systems.
High-tech reef & filtration equipment.
 Larger selection of live rock & live sand.
More Invertebrates:
 Over 2,000 gallons of coral-reef exhibits.
 Over 4,000 gallons of rare & unusual marine fish.
Expert Staff in marine science & aquarium husbandry ready to answer questions.
 Custom aquariums & cabinetry available.

(973) 365-0200
 1000 Route 46 West Clifton, NJ 07013
 Open 7 Days a Week
 MF 12AM - 5PM • Sat 12AM - 5PM • Sun 12PM - 5PM
 We Honor: Visa, MasterCard, Discover, American Express, M/C

AQUEON

It's all about the fish!
 Developed by true aquatic hobbyists and focused on products that will make your life easier when keeping an aquarium.
aqueonproducts.com

CORALIFE
Beyond the Basics!
 All-inclusive aquariums and a complete range of lighting and equipment that meet the needs of advanced hobbyists.
coralifeproducts.com
1-888-255-4527

CaribSea inc

Trusted by hobbyist and professionals alike, since 1972

We have 280 products to help make you a better aquarist!

Questions about our products? Feel free to contact us via our web site.
www.caribsea.com

CaribSea, Inc.
 P.O. Box 13359, Fort Pierce, FL 34979
772-461-1113

AMAZONAS

The legendary freshwater aquarium magazine is now in English
\$29 FOR ONE YEAR

CORAL

THE REEF & MARINE AQUARIUM MAGAZINE
\$37 FOR ONE YEAR

SUBSCRIBE NOW!

WWW.AMAZONASMAGAZINE.COM

PACIFIC AQUARIUM

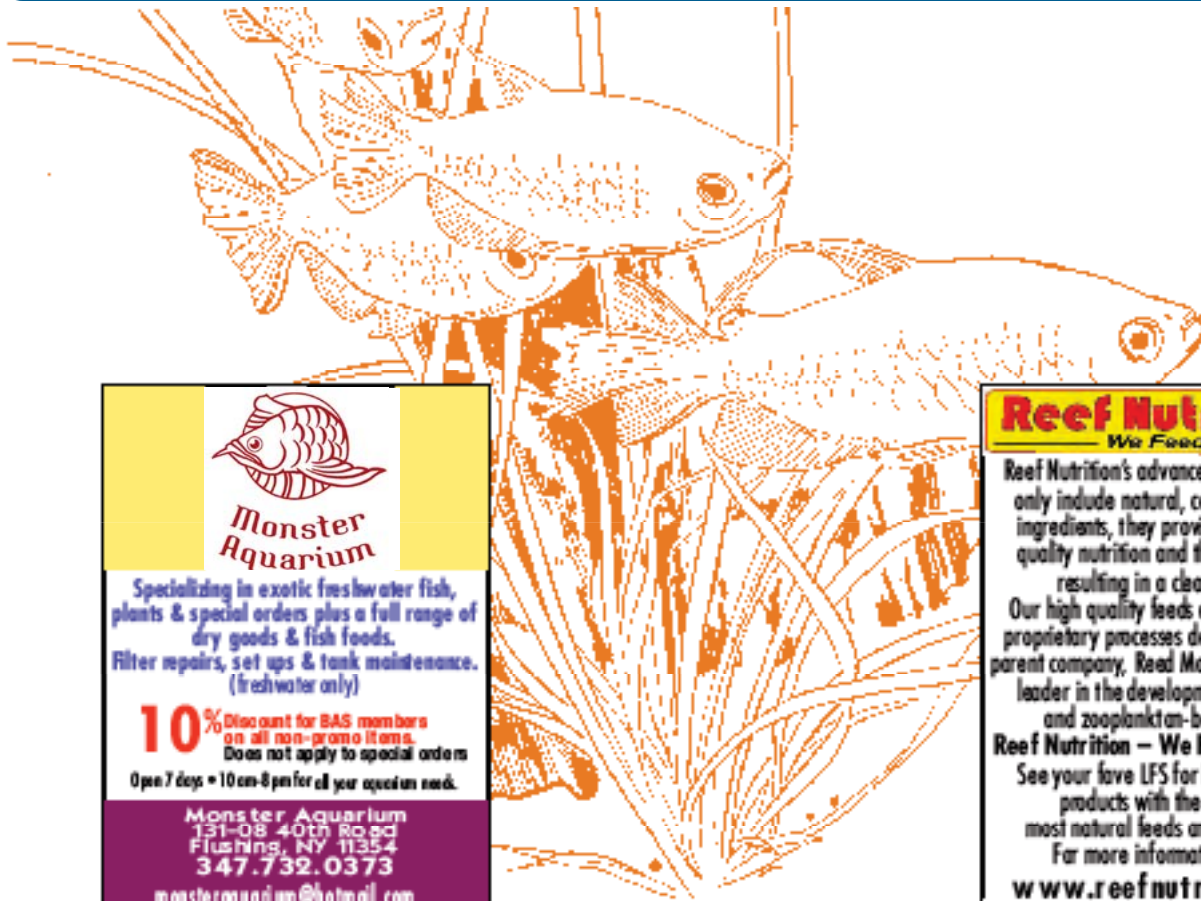
46 DELANCEY ST., N.Y., NY 10002
 Ph: (212) 995.5895
 Open 7 days a week & all holidays
 10am - 7:00pm

Specializing in exotic marine fish, freshwater fish, goldfish & koi & freshwater aquatic plants.
 Complete line of aquarium supplies. Custom size tanks & maintenance available.

10% Discount to BAS members with current membership card

WWW.PACIFICNYC.COM
 Close to the E, B, D, & 6 Subway lines
 Visa, MC, Discover Card, AmEx

Our Sponsors Support Us!
 We Must Support Them!
 Tell Them You Saw Their Ad
 In the AquaticNews




Monster Aquarium

Specializing in exotic freshwater fish, plants & special orders plus a full range of dry goods & fish foods. Filter repairs, set ups & tank maintenance. (freshwater only)

10% Discount for BAS members on all non-promo items. Does not apply to special orders

Open 7 days • 10 am-8 pm for all your aquarium needs.

Monster Aquarium
 131-08 40th Road
 Flushing, NY 11354
 347.732.0373
 monsteraquarium@hotmail.com

Reef Nutrition™
 — We Feed Your Reef —

Reef Nutrition's advanced fish feeds not only include natural, color-enhancing ingredients, they provide the highest quality nutrition and the least waste, resulting in a cleaner tank.

Our high quality feeds are using proprietary processes developed by our parent company, Reef Maniculture, a world leader in the development of algae- and zooplankton-based feeds.

Reef Nutrition – We Feed Your Reef

See your favorite LFS for Reef Nutrition products with the purest & most natural feeds on the market.

For more information, go to www.reefnutrition.com

JOSEPH S. REISMAN & ASSOC.
 Accounting & Tax Experts
 2751 Coney Island Avenue
 (Corner of Avenue Y) Brooklyn, NY 11235



WE SPECIALIZE IN:

- Aquarium Societies
- Aquarium Hobbyists
- Aquarium Retail Suppliers
- Aquarium Wholesale Suppliers

Tel: 718-332-1040
 Fax: 800-518-5251
www.TAXHELP1040.com

10% discount to Brooklyn Aquarium Society members with valid membership card

AQUA EFFECTS
 The Ultimate LED Light & Sound Experience



WWW.ZOOMED.COM

TROPICAL FISH
 THE BEST THING TO HAPPEN TO AQUARIUMS SINCE WATER

Fishkeeping is more fun when you succeed, and nobody has helped more aquarists succeed



Buy 6 issues, get 3 free Promo Code: VIP
SUBSCRIBE TODAY
tfnmagazine.com/subscriptions 1-888-859-9034

BENEFITS OF MEMBERSHIP IN THE BROOKLYN AQUARIUM SOCIETY

Your Membership Card is your Passport to Becoming an *“Educated Aquarist.”* Don’t lose it. Put it in your wallet or purse. You’ll need it to attend Monthly Events and get discounts at participating pet stores.

YOUR MEMBERSHIP BENEFITS INCLUDE:

Free Admission to all general meetings, held on the 2nd Friday of the month (except July & August) at 7:30 pm at the Education hall of the New York Aquarium, at Coney Island, Surf Avenue at West 8th Street, Brooklyn, N.Y. The Society presents expert speakers on all aspects of the hobby, from freshwater fish to marine aquatic life. Door prizes and raffles at every meeting. Breeder Awards Program (BAP) – Certificates and trophies awarded. General meetings are open to the public (\$5 donation is requested for non-members). Free parking and free refreshments.

Special Interest Groups (SIGs) hold meetings, free at members’ homes, for members only. Here’s your chance to network with members with the same interests. Discuss, ask questions, learn, teach and develop your expertise in freshwater and/or marine aquarium keeping.

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.

Calling all writers, artists and photographers! All members will have the opportunity to submit articles, photography and illustrations for publication in the **AquaticNews!**

BAS is on-line at BASNY.ORG. You’ll find up-to-date information about our monthly events, links to other aquarium societies in the US and stores, manufacturers and related aquarium sites. We have an on-line library with downloadable articles. We have our own BAS forum, where you can interact with other freshwater, marine or reef members and post free hobby-related classifieds where members sell and trade fish, corals, plants and equipment.

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.

Video Tape Library: We have a video tape library on different aspects of fish care and breeding plus past BAS Speaker Events. These video tapes are available via our BAS Forum. You must be a member of our Forum. Membership is free.

Discounts for Members at many BAS participating pet stores when you present your current BAS membership card.

Welcome and we hope you take advantage of the many benefits BAS has to offer.


Educating Aquarists Since 1911

Become an educated aquarist



Membership & Renewal Application Brooklyn Aquarium Society

Mail This Form And Your Check Payable to Brooklyn Aquarium Society to
BROOKLYN AQUARIUM SOCIETY, ATT: MEMBERSHIP CHAIRPERSON
P.O. BOX 290610, BROOKLYN, NEW YORK 11229-0011



Meetings are held at the NY Aquarium Education Hall on the 2nd Friday of the month at 7:30pm. Knowledgeable speakers on fish care and culture, and fish auctions. Free parking and refreshments. All meetings are free to members. Visit us online: WWW.BROOKLYNAQUARIUMSOCIETY.ORG

NAME _____ **OCCUPATION** _____

ADDRESS _____ **CITY** _____ **STATE** _____ **ZIP** _____

PHONE (DAY) _____ (EVE) _____ (FAX) _____

E-mail Address _____

TYPE & LENGTH of MEMBERSHIP: [CHECK ONE]

INDIVIDUAL				FAMILY				[] \$15 STUDENT 1 YEAR (UNDER 18 YEARS)
1yr. \$20	2yr. \$36	3yr. \$51	4yr. \$68	1yr. \$25	2yr. \$45	3yr. \$63	4yr. \$85	

* If family membership, please list all family members. Only first two listed will have voting rights.

1 _____ 2 _____ 3 _____

4 _____ 5 _____ 6 _____

Number of tanks [] marine [] freshwater [] **Do you breed fish?**
 [yes] [no]

If yes, what types do you breed: _____

Special interest (if any) _____

How did you hear about BAS [friend] [dealer] [flyer] [Aquatica] [mag ad] [online] other _____

To volunteer check [yes] [no] A board member will contact you if you check yes.
 On occasion, the Brooklyn Aquarium Society uses its mailing list to send notices of interest to our members.
 If you **DO NOT** wish to receive these mailings please check here []

Official use

Member number: _____ Type of membership [F] [I] [S] Date paid: _____
 Board approved date: _____
 Amount paid: _____ Renewal/member since: _____