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December 2024
volume XXXI
number 10

Greater City Aquarium Society - New York

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Series III Vol. XXXI, No. 10, December, 2024

ON THE COVER

Our cover photo this month is by Victor Huang., who shared it on our Facebook Fishy Friends page. It features a beautiful pair of *Aphyosemion australe*.

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From the Editor

by Dan Radebaugh

Well, here we are, at the end of another year! Attendance has *drastically* increased since our move to the Alley Pond Environmental Center. Some times blessings come in disguise. I don't think in our wildest dreams we would have expected such an increase in member turnout!

I try to keep up with the publications of other clubs around the country, especially those in our general vicinity. In last month's column I mentioned that a lot of the club publications that I am (or was) familiar with seemed to be having a pretty rough go. I am now cautiously optimistic that a number of those clubs (large and small) seem to be regaining a pulse! I've included a few exchange articles in this issue for your enjoyment.

I have also dedicated space throughout this year to the wonderful contributions over the lifetime of this incarnation of **Modern Aquarium** by Al and Sue Priest. Without them, it's hard to imagine that this magazine would have had the impact it has enjoyed over the years. I'm certain that I'll continue to reprise more of their wonderful contributions as time goes by.

Speaking of tremendous contributions, now and through the years, we need look no further than Steve and Donna Sica! For example take a look at Steve's article on mollies on page 9 of this issue. I don't know what we would have done over the years without Steve's far-flung interests and terrific photography!

We have of late also been dazzled by the marvelous articles and photography of Jason Gold! Jason has made a terrific impact on our magazine, and I certainly look forward to more articles from him in the future!

And of course we can't forget our former president Joe Ferdenzi, who has over the years made many wonderful and varied contributions to our magazine! There are many others (like Jules Birnbaum, or my wife Marsha) that I would like to thank, but I'm running out of space!

Remember, as always, we need articles! **Modern Aquarium** is produced by and for the members of Greater City Aquarium Society. Our members are our authors, and with ten issues per year, we always, *always* need more articles. I know several of you are keeping and/or breeding



fish that I would like to know more about, and I'm certain other members would be interested as well. Share your experiences with us. Write about it! If you're a little unsure about the state of your writing technique, don't worry—that's why editors were invented!

If you have an article, photo, or drawing that you'd like to submit for inclusion in **Modern Aquarium**, it's easy to do! You may fax it to me at (877) 299-0522, email it to gcas@earthlink.net, or just hand it to me at a meeting. However you get it to me, I'll be delighted to receive it! Enjoy!



Aquarium Care of Cichlids



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

Hardcover – Also available on Amazon Kindle

<https://www.amazon.com/Aquarium-Cichlids-Animal-Planet-Library/dp/0793837774>



GCAS Programs

2024

March 6	Emperor Tetras
April 3	Inside Filters
May 1	Live Food Culture
June 5	Swordtails
July 3	Aquatic Plants
August 7	Night At The Auction
September 4	Breeding Corydoras
October 9	Fishrooms
November 6	Daphnia
December 4	Holiday Awards Party!

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The Greater City Aquarium Society meets every month except January and February. Members receive notice of meetings in the mail or by email. For more information, contact: Dan Radebaugh at (718) 458-8437, email to gcas@earthlink.net, or fax to (347) 379-4984. For more information about our club or to see previous issues of *Modern Aquarium*, you can also go to our Internet Home Page at <http://www.greatercity.net>, <http://www.greatercity.org>, or <http://www.greatercity.com>.

President's Message

Good-bye!

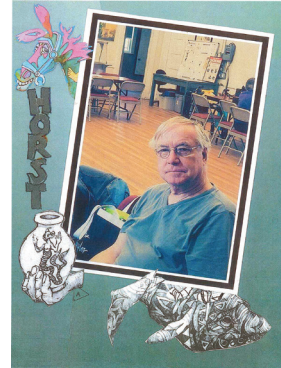
by Horst Gerber

OK Gerber, stop feeling sad! You did eight years as President! I have to admit that giving it up is a double-edged sword. On the one hand, there's a feeling of relief, but on the other hand there's a feeling of sadness. I wonder how our other presidents felt when they were no longer beset by the joys and frustrations that can be such a part of the job.

When I took over as President I had some pretty big shoes to fill. Joe Ferdenzi and Dan Radebaugh had done a fantastic job shepherding the club and **Modern Aquarium** for the previous 27 years or so. Following those two, I am honored to have been president of this fish club, with it's legacy of 102 years of spreading knowledge from and to our wonderful membership. Now it's time for me to relax and enjoy life as a Board member, putting in my two cents worth every now and then. I'm eager to share and read stories with all of our members!

I hope our new President feels the same way about his predecessors as I did about mine! I am now going to relax and enjoy the leisurely life of a Board Member, without too much worrying about how to handle the inevitable "things that happen!" Congratulations to President Warren, and God Bless Greater City!

P.S. In a recent member survey, when asked how interested you are in the printed version of **Modern Aquarium** issues, there was an overwhelming answer of , "Yes!" However, when we announced that to help cover our costs, we would be charging a modest (\$2) fee, the interest in having a printed issue dropped from distributing our usual 80 copies to about 30. While this does cut down on our expenses, I have to say that I am surprised!



Horst



Florida
AQUATIC NURSERIES





GCAS Thanks You!

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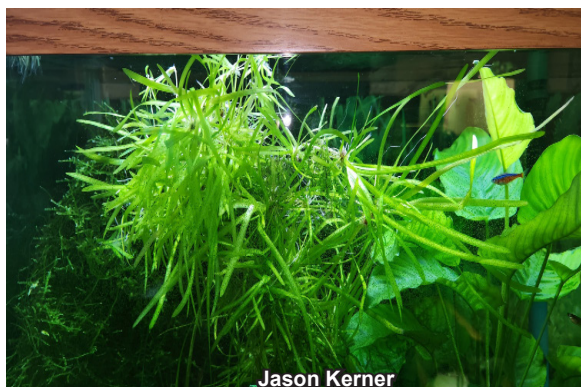
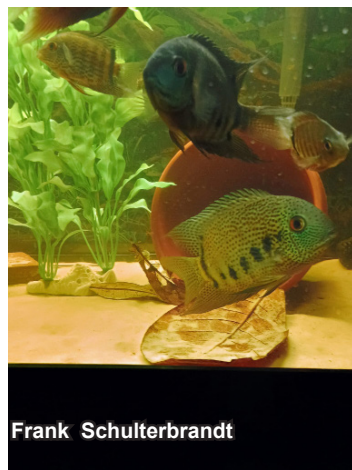
Zilla

Zoo Med Laboratories Inc.

Fishy Friends' Photos

by Greater City Aquarium Society Fishy Friends

***B**elow are photo submissions to our “Fishy Friends” Facebook group. I’ve left the subjects unnamed, but not the photographer. If you see a shot you like, and want more info, ask the photographer about it! I’m sure he or she will be delighted to tell you!*



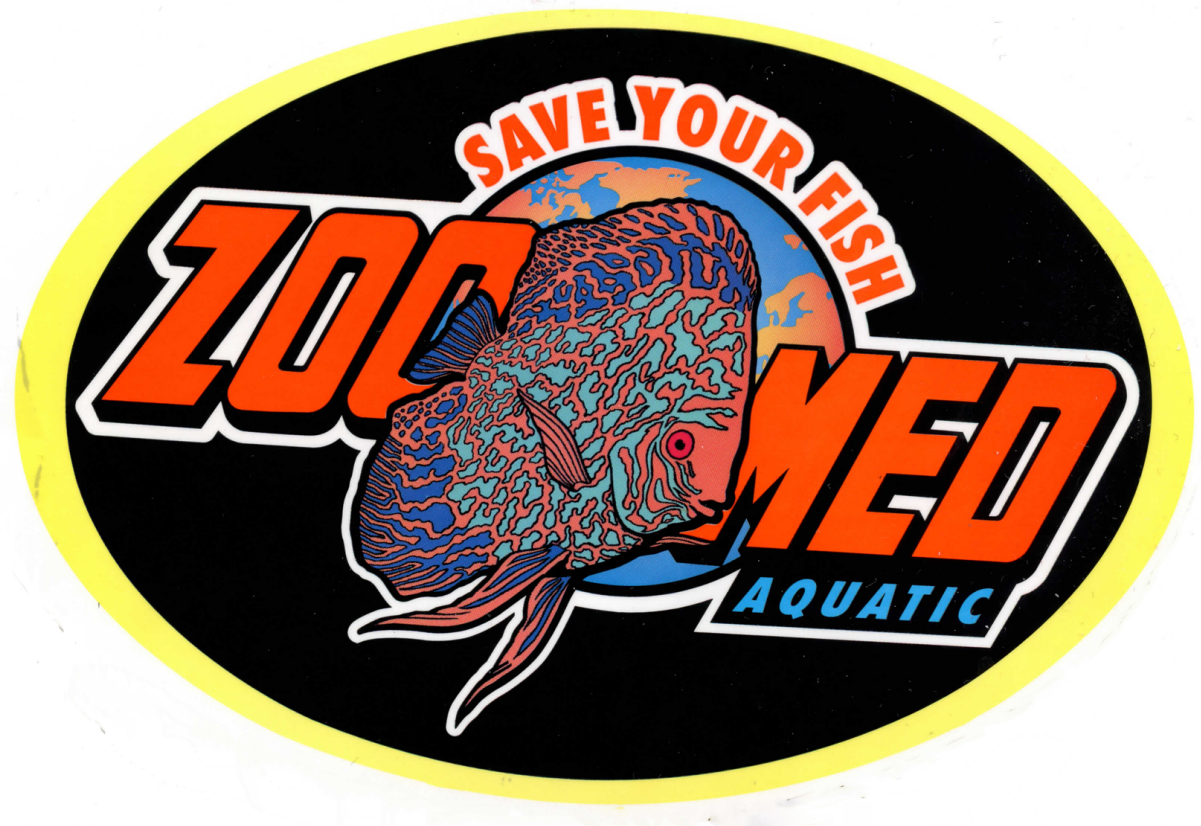


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BOWL SHOW RULES

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

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

MY (NON) BLACK MOLLIES

Story and Photos by Stephen Sica

Several months ago, when I decided to redo my fifteen gallon aquarium with live-bearing fish, I purchased four or five used fishkeeping books from an online vendor to reacquaint myself with various methods to keep, and perhaps breed, an unfamiliar fish. My last foray into similar fish was keeping green swordtails in a twenty gallon long aquarium. A handful of baby fish were born, but when they ceased breeding a couple of years later I dismantled the tank and stored it away in my garage. I keep items that I am not currently using and most of my unsuccessful projects in the garage.

My brother and I had bought black molly fish from Cameo Pet Shop on Jamaica Avenue in Richmond Hill, Queens when we were children. As an adult I had a few in a small aquarium, when the babies began to be eaten by kuhli loaches. These were the only other fish that I kept with the mollies. When I caught them in the act, the loaches were disciplined, and they ate no more mollies.



One of the used books that I purchased was a T.F.H. Publications small hardcover book titled **Livebearers**, by Wilfred L. Whitern. It was published in 1979, but I received a 1983 edition in good condition that I bought for



\$2.92. Since these are used, out-of-print books, if you buy one it may be the only one in stock. Books like this are either no longer available or it's a long time before another copy becomes available. Some information in these books may be out of date, but I found that most of it is still applicable today.

Many of these books were written by pioneers in breeding fish and establishing fishkeeping techniques.

Did you know that mollies are not black? As a youth, I always thought that mollies



were named the “black molly” because they are black. Plus, I had never seen a non-black molly in a pet shop. In nature, mollies, with an occasional exception, are not an all-black fish. Their primary color appears to be shades of gray. It was from occasional all-black fry that breeding programs were eventually able to develop an all-black strain.

Just before I learned this fact I was in Pets Warehouse in Carle Place pointing out a gold and silver male molly to the person netting the fish for me. He asked, “You want the albino one?” My eyes almost popped out of my head because I mostly dislike albino fish. “Yes,” I meekly replied. I thought to myself, “That gold and silver fish is actually gold and

white?" Oh my, I guess that I'm about to buy an albino molly!



A few weeks earlier I had been in a chain pet store after having decided to give mollies a try. In the fish department, gold nugget mollies were advertised in a tank with fish that were all gold. There were three or four, and I purchased three for my fifteen gallon tank. After two weeks, one died. A few weeks later, another died. This led me to the afore-mentioned Pets Warehouse where I picked up one male and two females. One of these fish soon died, so I originally began with three fish, and I ended up with three fish. I think that I still had one male and two females. I was determined to do my absolute best to care for these fish. I purchased a few aquatic plants at a Greater City auction and littered the tank with ferns and moss. I also purchased a few anubias plants on eBay. I did water changes on a regular basis and threw in water conditioner and bacteria additives. I had never tried frozen fish foods in the past, but soon added them to the mollies' diet. I even began testing the pH and water quality more often.

A few weeks later Donna, Cordelia and I drove upstate on a Sunday morning to try to observe the total solar eclipse. We stayed two nights at a motel in Herkimer, NY. Coincidentally it was within walking distance of the Erie Barge Canal. We walked along a short section of the canal to observe the flora and fauna, especially fish life. Surprisingly, we saw no signs of fish. The canal appeared rather devoid of aquatic life. Anyway, when

we arrived home on Tuesday afternoon, I went down to the basement to feed my fish. In the molly tank, much to my surprise, were two rather large fry swimming with the three adults. I doubted that they were born before we drove upstate two days prior, so why were they so large? I had no idea.

About three weeks later we spent a weekend in Riverhead on Long Island. When we returned home, I went down to feed my fish, and discovered two tiny baby mollies. They were *half* the size of the first two babies. After a few more weeks the male molly disappeared, and one female began to hide behind a rock and clusters of java ferns and moss. I was hesitant to disturb the tank and go poking around for the missing fish. It wasn't hiding, because too long a period had elapsed. Plus, there were two large adult snails and at least seven babies in the tank who might have eaten the remains.

A month later, six tiny molly fry appeared, so I had two adult females, four young adults who appeared to be females, and six tiny babies of unknown sex. I was thinking of adding an all-black male fish, or one with a black and white pattern, when the smaller,



less dominant and shy female passed while we were in Riverhead for four nights.

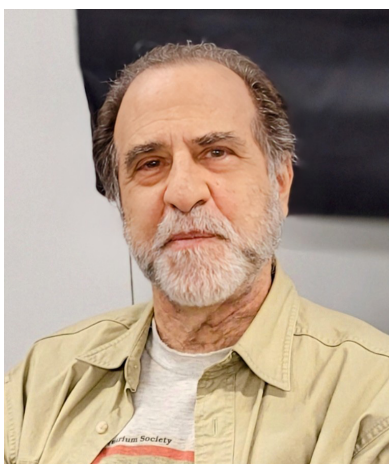
I purchased a black speckled male in Pets Warehouse two weeks later, and it has been chasing the immature females. If any of these fish eventually mate, what combination will I get? For now I'll try to observe and nurture the young mollies. If that becomes boring, I can always clean a fish tank. Oh, what a silly idea!



Who Are We?

by Marsha Radebaugh

In this very special edition of this column, we are privileged to have our NEW PRESIDENT introduce himself to those of you who don't know him and to reintroduce himself to those of you who may have missed him. Warren has been a long-time member and major player in GCAS and we are thrilled he has returned, bringing with him a wealth of knowledge about the hobby and years of valuable experience. Please meet:



Warren Feuer

I first kept fish as a child, with my father's guidance. We had a 10-gallon tank that we kept in our dining room filled with guppies and swordtails. This eventually became a turtle tank, and that was the end of round one.

Many years later the bug hit me again. After seeing the movie **A Fish Named Wanda**, I expressed an interest in keeping a fish tank to my wife, who is convinced that my interest in keeping fish coincided with her expecting our first child. Hey, one of the secrets of a happy marriage is never disagree with your wife, so, that must be how I started again in the late '80s!

I started with one of those "combination" tanks, a 5-gallon acrylic hex tank with a simple and noisy air driven sponge filter. As luck (and fate) would have it, the tank leaked, and upon returning it I decided I wanted a "real" tank. I purchased a 20-gallon hex tank that I filled with black tetras, tiger barbs, silver dollars and tinfoil barbs. You can guess what happened next... the tank was *way* too small for the fish I had, so I just "had" to get another tank—this time a 30 gallon long. Then two tanks became three, as the tinfoils outgrew the 30. It was about this time that I discovered the Greater City Aquarium Society, as I was beginning to babble in Latin and scare the few people I knew who kept fish. I searched for a club to join and found GCAS. After that, insanity truly set in! Eventually there were 11 tanks in my apartment, and all sorts of different fish being kept.

One of my intended goals was to begin breeding fish. I had begun keeping Lake Tanganyika cichlids after attending a presentation by then GCAS President Joe Ferdenzi and becoming addicted to those fish. The fact is, I blame Joe and Mark Soberman for my becoming the fish junkie that I am. It was my ever-increasing friendship with them that got me hooked on all the different types of fish there are, including killies and all the catfish that are around. It is also all their fault that I got heavily involved in Greater City, serving as membership chair, publicity chair, recording secretary and co-chair of the Breeder's Award Program. I also helped resurrect the club's magazine **Modern Aquarium**, and served as its Editor from 1994 to 1998.

Because I was living in an apartment at the time and had a limit to both the number of tanks and the size of each tank, I began keeping shell dwelling dwarf cichlids from Lake Tanganyika. I found them much easier to keep than the South American dwarf cichlids, and had a great deal of success breeding them.

In 2001 we bought a house in suburban Long Island, New York, and I was able to set up a dedicated fish room. In its heyday there were slightly more than 30 active tanks in my fish room. At one point I was keeping and breeding 8 shell dweller dwarf cichlid species in my fishroom.

During the years between our moving to Long Island and the present, there have been a considerable number of events that have shaped my fishkeeping life. One of the most significant was the power failures that occurred in 2011 and 2012, when powerful storms hit the East Coast and resulted in extensive power failures. After Hurricane Sandy in 2012 almost all of my fishroom was wiped out

and I was ready to stop keeping fish. My friends, who knew better, advised me that I should not stop keeping fish. Little by little, I eventually restored my fish room. However in doing so, I set up fewer tanks and have kept fewer fish since then.

In 2020, during the COVID epidemic, another power failure hit Long Island, and there was no power for almost 2 weeks. Fortunately my losses were significantly lower, but my patience had run out with depending on the inconsistent power situation on Long Island. In September of 2022 we purchased a whole house generator that automatically goes on when the power goes off. There have been several minor power outages since then, but thanks to the generator they have been non-events.

Presently I am keeping 20 fish tanks, and that is plenty. My long-time favorites such as smaller *Hypancistrus* species plecos (which I am breeding) and Lake Tanganyika shell dwelling cichlids (which, for some reason are *not* breeding) continue to be a part of my fishroom denizens. As a new challenge I've also been working with *Neocaridina* shrimp. I think I've finally gotten them going!

When Greater City moved its meeting location to the Alley Pond Environmental Center, combined with the fact that I am now happily retired, it became much easier for me to attend monthly meetings, which I had not been doing for several years.

When Joe Ferdenzi told me that Horst wanted to retire as President of Greater City, I offered to help, having spare time on my hands. I am looking forward to once again playing an active role in the club, and I hope I can play a successful role in keeping our great club great!



WET LEAVES



a Series On Books For The Hobbyist
by **SUSAN PRIEST**

Do you know what a madrepora is? I didn't until I read this book. There is a drawing of one in the two lower left "sections" of the accompanying cover illustration. A madrepora is a type of coral. The word madrepora means "mother of rock." They are "island builders," architects of the continents of coral reefs which took billions of years to form. (That last statement is a clue to the controversy which lies ahead.)

This book is not quite a biography, is descriptive of history without being a treatise on the subject, and is replete with both religious and evolutionary approaches to the topic of reproduction (gasp!), which was not a topic to be discussed in polite society of the nineteenth century. I would have to describe it as a narrative which doesn't lend itself to my usual approach, so I find myself scratching my head as I ask myself where to begin.

I think that I must focus as concisely as I can on our heroine. Her name is Anna Constantia Thynne. As a very young girl she was adopted by an aunt, thereby becoming the only child of a very wealthy couple. She grew up with access to voluminous libraries within her own home(s), as well as microscopes, telescopes, and any thing else, scientific or otherwise, which she might fancy. She married the Reverend Lord John Thynne in

1824, one month prior to her eighteenth birthday, and she was to become the mother of ten children.

We will now fast-forward, bypassing the many formative events and relationships in her life which nurtured her voracious curiosity, to the year 1847. Anna had developed a thorough knowledge of, and an intense interest in natural history. In addition to visiting fields and meadows, she often took her children on "collecting trips" to the nearby seashore. Among the rock pools they found many living specimens, including those of madrepores, the fossils of which she had in a glass display case in her home. She never imagined that they would be soft, with blindly probing tentacles

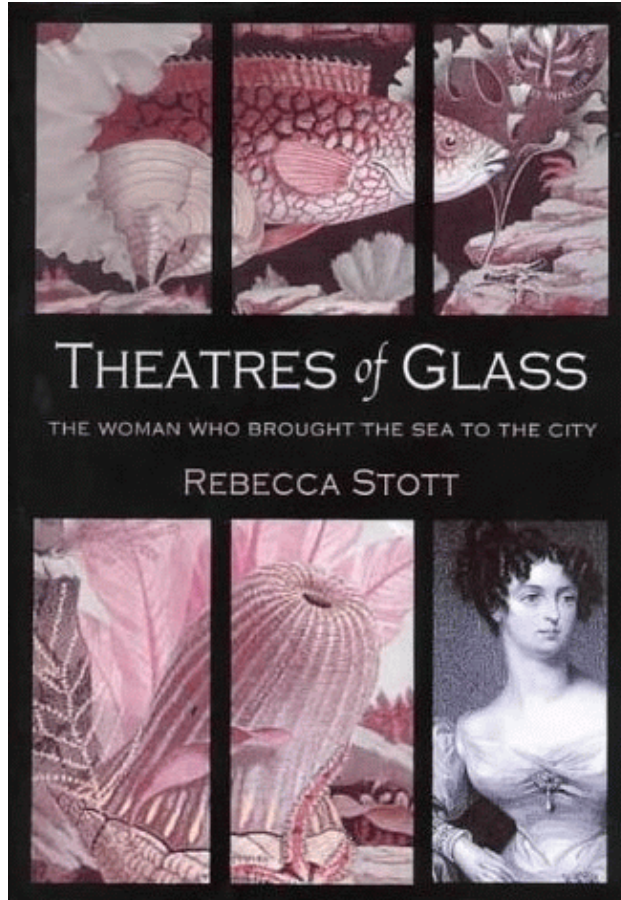
and tiny red mouths. When her children asked such questions as "can it feel," and "what did God make it for," she wasn't sure how to answer their queries about a "natural theology" which gives testimony to the wonder of God's divine

order. Was it possible to reconcile the story told by fossil records with the story told by the Bible? (The "nauralists" of today are still asking this question.)

Anna and her children took thirty of the madrepores home, along with some seawater.

They were "displayed in pie dishes on the drawing room floor." When she wanted to transport them to her home in London, she "carefully sewed each one onto a sea sponge with a needle and thread." Anna fed her madrepores cut-up shrimp. She moved them into glass tanks, and did daily water changes with fresh seawater. When this became cumbersome, her household staff took on the task of aerating the "used" water by passing it back and forth between containers in the sunlight. Eventually she discovered that the addition of living seaweed to the tanks

Theatres of Glass: The Woman Who Brought the Sea to the City
By Rebecca Stott
Short Books, 2003



This article originally appeared in the December, 2009 issue of Modern Aquarium.

meant that she didn't need to aerate the water as often. By processes of trial and error, Anna not only kept her madrepores alive, but was able to observe their asexual reproduction.

I must utilize a few quotes at this point. "While others were drying and pinning their specimens for display cases, Anna's [specimens] were alive in their own environment." "Marine invertebrates, with their budding and splitting, provide opportunity to determine nature's laws of reproduction." "It was difficult to maintain the supposed superiority of male sexual vitality when some organisms seemed to be able to dispense with males altogether."

By the spring of 1849, Anna had established the first self-sustaining, balanced marine aquarium in London. This era was a hotbed of naturalist activity. Dozens of luminaries were publishing accounts of their achievements, and

many were making claims to being "first" in the marine arena, but none of their documentation can place them before Anna Thynne and her madrepores. Anna's notes were published under the title "On The Increase Of Madrepores," in the **Annals and Magazine of Natural History** in 1859, which is the same year that Charles Darwin published **On the Origin of the Species**.

The story of Anna Thynne takes place in a time of enlightenment, a crossroad in history, and a scientific as well as religious environment. Most importantly, it is the story of remarkable woman with immeasurable curiosity and vision who has forever influenced our understanding of the natural world. Our author, Rebecca Stott, has done a much better job of telling Anna's tale than I have of reviewing her book. Nevertheless, I hope I have aroused your interest in this multifaceted story.



Merry Christmas

by SUSAN PRIEST

Fifty miles, maybe one hundred; how far from New York City do you have to go before you can safely say "Merry Christmas" to friends, neighbors and people in passing without fear of offending someone? I know you can do it in Laconia, New Hampshire, as well as in Marysville, Pennsylvania. One of our club members once told me that she was often wished a "Happy Hanukkah," which she does not celebrate, but she never felt offended by it. If someone makes their best effort to wish us what they consider to be an appropriate greeting of the season, let's all try to accept it in the spirit with which it is offered, even if they miss the mark once in a while. I'm going to go out on a limb, so to speak, and say it; "**Merry Christmas!**"

At last year's GCAS party, I made a determined effort to subdue my spirit. I chose a seat off to the side, and tried to stay put. This didn't come naturally to me. In fact, I almost didn't come at all. I was in fear of picking up a "bug" of some kind. The reason for all of this was that I was facing open heart surgery a week later. I had just resigned from my job of ten years because I was the only employee in a small office. I didn't know when or if I would be able to return, and someone else needed to be hired. I had so much on my mind that celebrating anything was out of the question for me. I'm telling you these things because my holiday message to you goes like this; **it's never too early or too late to celebrate**. On December nineteenth, the day I came home from the hospital and slept in my own bed, it was Christmas at my house! So, if you've got some pretty good stuff going on in your life, you find yourself to be in touch with your spiritual side, and maybe you have a little dog around to make you smile, well, don't let the opportunity pass you by to enjoy them. But if something heavy is weighing you down, and this holiday season just isn't happening for you, you can always celebrate it when the time is right. If you think that time might not come at all, then celebrate right now, today, and with **gusto!!**

Anyway, here I am a year later, a newer version of a not-too-old aquarist. I've got a lot to be thankful for, and a lot to celebrate, not the least of which is my association with everyone at Greater City. I want to add a few last salutations of the season. I would like to wish one and all happiness, prosperity, and most especially, abundant good health in 2010. Peace on Earth, that would be a big bonus, so while we're making wishes we'll wish for that, too!



A New Star in the Galaxy

The Celestial Pearl Danio, *Celestichthys margaritatus*

by ALEXANDER A PRIEST

The celestial pearl danio is a fairly new species, discovered in August of 1996. Originally, it was given a tentative scientific name of “*Microrasbora* sp. ‘Galaxy’” and a common name of “galaxy rasbora.” (It was initially considered to be a member of the *Microrasbora* genus, due to its similarity to *Microrasbora erythromicron*.) It has now been officially described by taxonomist Tyson R. Roberts at the Smithsonian Tropical Research institute in the **Raffles Bulletin of Zoology** in February 2007, and placed in a new genus. It is now known as *Celestichthys margaritatus* (which means “heavenly fish adorned with pearls”) and is presently the only species in the genus *Celestichthys*. It belongs to the subfamily Danionae and to the family Cyprinidae. The first article in a commercial magazine on this fish was in the December 2006 issue of the British publication, **Practical Fishkeeping** in its “Interesting Imports” column ¹.



Celestichthys margaritatus - male

When the celestial pearl danio was first introduced to the hobby (as the “galaxy rasbora”), its exact collection location was kept secret for commercial reasons. That location was eventually discovered to be shallow wetland ponds in the Salween Basin, northeast of Inle Lake in Myanmar (formerly Burma). The bright colors and small size of this species made it an instant hit with hobbyists. It immediately became so popular that only two months after its introductory article on them, **Practical Fishkeeping** reported that catches were down to just a few dozen per day, apparently due to over-collection².

As a result, in February 2007, the government of Myanmar banned exports of the fish. Since

then, additional populations have been discovered around Hopong, a town in the Shan State of eastern Myanmar³. Fortunately, this fish has also been found to breed in the home aquarium (it was first bred in captivity in England by Pete Liptrot and Paul Dixon of the Bolton Museum Aquarium); and domestically bred stock is usually available, although demand generally remains high.

The celestial pearl danio is a very small fish that only attains a length of about one inch. Nonetheless, before its introduction to the aquarium hobby trade, these fish were caught, dried, and sold for food by the local people. A can of approximately 500 *C. margaritatus*, when sold as food, brought in about 25 kyat (or about \$3.90 U.S. dollars). Now, when sold to the aquarium trade, each fish live is worth about one kyat. This means that 500 live fish can bring in nearly \$80 — a significant increase, especially for residents in a country that remains one of the poorest nations in southeastern Asia.



Celestichthys margaritatus - female

One of my all-time favorite fish is the pearl gourami, *Trichogaster leerii*. To a great extent, the celestial pearl danio reminds me of the pearl gourami. It is one pretty little fish. Its body is sprinkled with small, pearly dots, calling to mind (for me at least) the pearl gourami. (Interestingly, the chest of males is more orange, another similarity to the pearl gourami.) The gill covers of the celestial pearl danio are transparent, allowing the blood-red gills beneath to be clearly visible. The background body color of males is bright blue, with males being more brightly colored than females, and having more red on their fins. The caudal peduncle is higher in males than in females. The red fins have black bars and patterns, which

This article originally appeared in the December, 2008 issue of *Modern Aquarium*.

are more numerous and darker in males. In general, females are less colorful and have rounder bodies. While a generally peaceful species, males will flare out their fins “squaring” to each other, resulting in some spectacular displays (when you are lucky enough to catch them at it, as this is also a very shy species).

These fish are egg scatterers. I have read and been told that their tank should have marbles, or Java Moss, or a screen to allow eggs to fall into and to prevent the adults from eating the eggs. I have also read and been told that the fry need live micro organisms to feed on for the first few days of their lives. Well, I had a group of a half-dozen celestial pearl danios in a five-gallon tank, with no Java Moss, no marbles (in fact no substrate at all), but with two caves (one made from a coconut shell with an *Anubias* sp. coffeeolia plant attached). One day, my wife told me that she saw fry in the tank. Sure enough, with only flake food (they are omnivorous, and will eat flake, pellet, freeze-dried, live, or frozen food, if it is small enough), and very minimal maintenance, my celestial pearl danios spawned, and some fry survived. (It should be noted that this tank had both a box and a sponge filter, and that it is quite possible that naturally occurring microorganisms on the sponge filter were sufficient to feed the newly hatched fry.)

Some collectors claimed that the water in which these fish are collected has a pH of 7.3 (slightly alkaline) with a hardness of 7 GH (slightly hard). My New York City tap water is very soft, and has a neutral pH (7.0, almost exactly). The coconut shell in their tank appears to leach tannins into the water (making it somewhat

Scientific name: *Celestichthys margaritatus*
Common name: Galaxy Rasbora,
 Celestial pearl danio, Fireworks Rasbora
Geographic location: Myanmar (Burma)
Size: Up to 1 inch (2.5cm)
Temperament: Peaceful
Temperature: 70°F-78°F
Acidity: pH 6.8-7.5
Hardness: Slightly hard to slightly soft
Skill level: Intermediate
Minimum tank size: 2.5-5 gallons
Reproduction: Egg scatterer
Nutrition: Omnivorous

tea colored) so that the actual pH my fish spawned in was slightly acidic (6.8 or so). In their native habitat, the water temperature is around 70°F, but since the water is shallow, it is also prone to rapid temperature fluctuations.

So, you can see that this is basically a relatively tough and adaptable little fish.

It should do well in a fairly wide range of water conditions, and is suitable for almost any community tank of small, peaceful fish. It might also be a good candidate for a mini or desktop aquarium.

If you see them, they are certainly worth checking out, especially if you have a community tank of very peaceful fish, or a spare small tank available. While they are not all that common yet in pet stores, they do often pop up in Internet sales and auction sites (such as aquabid.com) or in aquarium society auctions. (In fact, I got my fish at a Greater City Aquarium Society auction.)



Map of Myanmar with Lake Inle circled

References

- Clarke, Matt: “The next big thing: *Microrasbora* sp. Galaxy,” **Practical Fishkeeping**, September 2006.
- Clarke, Matt: “Galaxy rasbora under threat” **Practical Fishkeeping** February 2007.
- Clarke, Matt: “New populations of *Celestichthys* discovered” **Practical Fishkeeping**, June 2007.

Book Review: What a Fish Knows

The Inner Lives of Our Underwater Cousins

A New York Times Bestseller

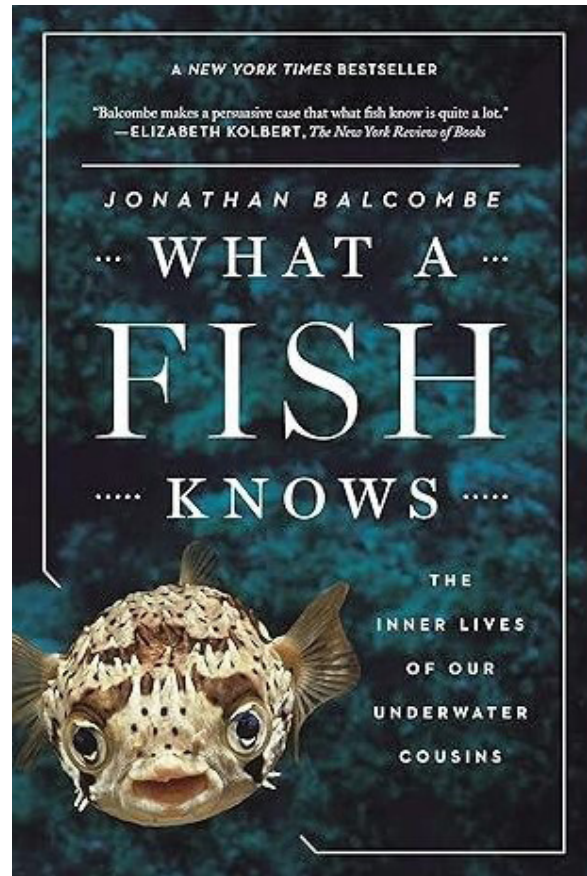
by Tony Patti

My aunt (who lives in Toronto) saw this book, and got it for me, and I read it, found it quite fascinating, and I learned a lot. On Amazon, this book has 4.6 out of 5 stars, has been rated by 812 people, so most people (76%) give this book the highest possible score. The author, Jonathan Balcombe, is the director of animal science at the Humane Society Institute for Science and Policy, and the author of four books, so he knows how to write a good book! The book is dedicated “To the anonymous trillions [of fish]”.

The chapters are:

1. The Misunderstood Fish
2. What a Fish Perceives
3. What a Fish Feels
4. What a Fish Thinks
5. Who a Fish Knows
6. How a Fish Breeds
7. Fish Out of Water

It is a thoroughly referenced book, with 32 pages of Notes/Citations, on pages 239 thru 270. At the beginning of the book (page 11) Balcombe makes this observation about our fishes: “What we casually refer to as ‘fish’, is in fact a collection of animals of fabulous diversity. According to FishBase – the largest and most often consulted online database of fishes – there are 33,249 species, in 564 families, and 64 orders, which had been described as of January, 2016. That’s more than the combined total of all mammals, birds, reptiles, and amphibians. When we refer to ‘fish’ we are referring to 60 percent of all the known species on Earth with backbones.”



Here is the summary on the Amazon book web page:

Do fishes think? Do they really have three-second memories? And can they recognize the humans who peer back at them from above the surface of the water? In *What a Fish Knows*, the myth-busting ethologist Jonathan Balcombe addresses these questions and more, taking us under the sea, through streams and estuaries, and to the other side of the aquarium glass to reveal the surprising capabilities of fishes.

Although there are more than thirty thousand species of fish—more than all mammals, birds, reptiles, and amphibians combined—we rarely consider how individual fishes think, feel, and behave.

This article originally appeared in the July 2024 issue of the Bucks County Aquarium Society's The Buckette.

Balcombe upends our assumptions about fishes, portraying them not as unfeeling, dead-eyed feeding machines but as sentient, aware, social, and even Machiavellian—in other words, much like us.

What a Fish Knows draws on the latest science to present a fresh look at these remarkable creatures in all their breathtaking diversity and beauty. Fishes conduct elaborate courtship rituals and develop lifelong bonds with shoalmates. They also plan, hunt cooperatively, use tools, curry favor, deceive one another, and punish wrongdoers. We may imagine that fishes lead simple, fleeting lives—a mode of existence that boils down to a place on the food chain, rote spawning, and lots of aimless swimming. But, as Balcombe demonstrates, the truth is far richer and more complex, worthy of the grandest social novel.

Highlighting breakthrough discoveries from fish enthusiasts and scientists around the world and pondering his own encounters with fishes, Balcombe examines the fascinating means by which fishes gain knowledge of the places they inhabit, from shallow tide pools to the deepest reaches of the ocean.

Teeming with insights and exciting discoveries, *What a Fish Knows* offers a thoughtful appraisal of our relationships with fishes and inspires us to take a more enlightened view of the planet's increasingly imperiled marine life. *What a Fish Knows* will forever change how we see our aquatic cousins—the pet goldfish included.

I thought it was interesting that the first quote of praise for this book is by The Dalai Lama: “We Buddhists consider all animals, including fish, as sentient beings who have feelings of joy and pain just as we humans do. We also believe that they have all been kind to us as our mothers many times in the past, and are deserving of our compassion. Therefore, we try to help them in whatever way we can and at least avoid doing them harm. In *What a Fish Knows*, Jonathan Balcombe vividly shows that fish have feelings and deserve consideration and protection like other sentient beings. I hope reading it will help people become more aware of the benefits of vegetarianism and the need to treat animals with respect.”



The Easy Way to Fill Aquariums: Handy Hose and Faucet Devices

by Clifford H. Crain, Jr.

When your fishroom reaches a certain size, typically after Multiple Tank Syndrome (MTS) kicks in, hobbyists find that carrying buckets of water to the sink and back won't cut it any more. Filling the tank with a hose is much easier on the back, and quicker too! A very popular piece of equipment is the "Python No Spill Clean & Fill Aquarium Maintenance System" and similar systems offered by competitors. Python's big advantage is that it works to both remove water from the aquarium and replace the water. It also doesn't require any unsightly permanent piping; the hose is wrapped up and stored when not in use.

While the Python is very popular and is an excellent solution for those whose only drain is a sink some distance from the tanks, I don't need it for my setup. I don't care for the way Python removes water, by running water down the drain to create the vacuum needed to suck dirty water from the tanks to the sink. The cheapskate in me cringes when I watch videos of perfectly clean tap water going down the drain. Instead, I use a fixed 2" PVC pipe system to carry the dirty water to a floor drain, and a hose to carry tap water to the tanks. In this article I will focus on the hose and fittings that take water from the tap to the tanks. There is hardware you'll want to use to ease the process.

First is the hose itself. Yes, you can use a garden hose with no problem. I found a better hose. It's the kind, made of a plastic that will not leach into the water, designed to deliver potable water for use in recreational vehicles. What I have discovered is that this hose is much less prone to kinking than a standard garden hose. I purchased mine at the home center store.

If the sink used for your water changes does double duty for another purpose, you will probably not want to keep a 25' hose attached to the faucet. So the first piece of hardware you'll need is a Y faucet adapter with shutoff valves. The base of this fitting is screwed to the faucet, and you attach your aquarium hose to one of the Y arms and attach whatever other hose to the other arm. I have attached to that other arm a 6' hose that I use when cleaning filters and rinsing paint brushes, and The Chief uses it when she's prewashing laundry. Each arm of the Y has a shutoff valve.



Y faucet adapter. Tub hose on left, aquarium hose on right

Since you don't want to leave a long hose attached to the faucet all the time, install a quick-connect fitting to the aquarium branch of the Y. The quick-connect fitting eliminates the need to screw and unscrew the hose every time you make a water change. This device is labeled as "garden hose adapter" in the plumbing section of the local home center store. Since I'm not the brightest fish in the tank, I never would have known about this handy device had I not joined the Central New York Aquarium Society and taken the

This article originally appeared in the April, 2024 issue of The Reflector, Volume 48 #8

opportunity to visit fellow club member Mike Vormwald's setup. I marveled as Mike showed me how easy it was to connect and disconnect the hose using this fitting.



Worn-out Quick-connect fitting on Left

Excited, I purchased a quick-connect device, but I could not figure out for the life of me how the dang thing worked. So for the next few weeks I continued to screw and unscrew the hose. Finally, after watching that source of all knowledge, YouTube, I discovered that you have to push with some force the part of the fitting that's attached to the hose into the fitting attached to the Y arm while pulling back the spring-loaded ring on the part attached to the Y arm. I wasn't pushing it hard enough. I did a little happy dance the moment when I got this to work.



New Quick-Disconnect Fitting aka "Garden Hose Adapter"

The quick-connect fitting will eventually wear out. You'll know this when you find it is getting harder and harder to push the two parts of the fitting together. Changing water twice weekly, I got about two years of use until the fitting needed to be replaced.



Broken PVC Ball Valve on Left

At the other end of the hose is a homemade PVC contraption with a ball valve that allows you to go from tank to tank, turning the water off after one tank is filled and turning it back on for the next tank. The parts for this are all available in the plumbing supply section of the home center store, and it's not hard to screw and glue everything together. Important: don't use a PVC ball valve when building your hose shutoff. Reason: PVC valves are designed for very limited use. Think about it: how many times have you had to turn the water supply off to your sink or toilet? I'll bet less than a dozen. Now how many times will you turn the valve on and off when doing water changes? Try thousands per year. I'm changing water twice weekly in about twenty aquariums. That's a turn on and a turn off in each tank. 20 tanks times 2 turns per tank times 2 times per week times 52 weeks per year equals 4,160 turns per year! That was too much for my PVC ball valve which snapped apart. I replaced it with a brass valve and fittings for less than \$10 and have had no trouble since.

Simplify your water changes with the right equipment.



The Joys of Daphnia

by Horst Gerber

Daphnia! There are some 28 species of daphnia, from small size to magnum. If you don't have a handy neighborhood swamp, just look around online, and you'll see many sources for purchasing them. If you get yours from the swamp though, take a good look at what you have captured – you don't want to bring home a crowd of mosquito larvae as well. The two are often found in the same habitat.



One of my collecting sites was where there were a few pools of water that usually dried up during the summer. On one visit, the mosquito population was overwhelming. I high-tailed it out of that area, ending up in my car, surrounded by mosquitos! At that point I decided it was time to start my own culture!

Pet stores (I don't see many of these any more) don't often carry live daphnia, but they



are often available from fellow club members or from our auctions. I often collected starter cultures from Van Cortland Park, though the last time I did that was years ago. It was the end of the summer, and that culture has been going summer and winter in my back yard for more than ten years. After seeing the results of keeping a supply of daphnia you'll see why many of our members swear by them.



Remember though, examine your catch to be sure you aren't bringing home mosquito larvae with them!



Photos: From Amazon.com — live daphnia.

Pictures From Our Last Meeting

Photos by Marsha Radebaugh



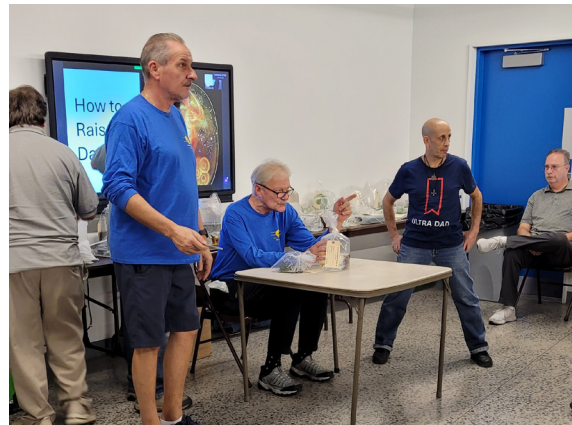
Some of the goodies ready for raffle!



Everyone is ready for the auction!



Mark Soberman, Warren Feuer,
and Lenny Ramroop



The auction is underway!



Paul Halvatzis with Aunt Carol & Uncle Sam
Cecesari



New Member Henry Rothschild



Jason Irizarry receives congratulations from Joseph Ferdenzi on winning the Door Prize!



Bill Amely presents November Bowl Show Winner, 1st & 2nd Places, to Richie Waizman.



GCAS Happenings

December

A WARM WELCOME TO OUR NEWEST MEMBER, HENRY ROTHSCHILD!

November's Bowl Show Winners:

1ST PLACE RICHIE WAIZMAN
2ND PLACE RICHIE WAIZMAN

UNOFFICIAL 2024 BOWL SHOW TOTALS TO DATE:

RICHIE WAIZMAN 21 BILL AMELY 3 STEPHEN SICA 3 JOHN "BUZZ" BUZZETTI 3

Here are some aquarium societies in the Metropolitan New York area:

GREATER CITY AQUARIUM SOCIETY

Next Meeting: March 5, 2025

Speaker Topic: TBA

GCAS Usually Meets the first Wednesday of the month at the Alley Pond Environmental Center
22465 76th Ave, Oakland Gardens, NY 11364

Contact: Joseph Ferdenzi (516) 484-0944

E-mail: GCAS@Earthlink.net

Website: <http://www.greatercity.net>

BROOKLYN AQUARIUM SOCIETY

Meets the 2nd Friday of the month (except July and August) at 7:30pm: New York Aquarium - Education Hall, Brooklyn, NY 11229

Call: BAS Events Hotline: (718) 837-4455

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

LONG ISLAND AQUARIUM SOCIETY

Meets: 2nd Fridays (except July and August) 8:00pm.

Meetings are held at AMVETS Post 48, 660 Hawkins Avenue, Ronkoncoma, NY 11779

Website: <https://ncasweb.thechinesequest.com/>

NASSAU COUNTY AQUARIUM SOCIETY

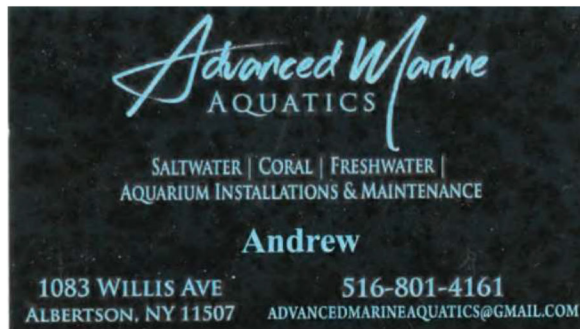
Meets: 2nd Tuesday of the month (except July and August) at 7:30 PM. Meetings are held at:

Molloy University - 1000 Hempstead Ave, Rockville Center, NY, Barbara H. Hagan Center for Nursing, Room 239

Contact: Mike Foran (516) 798-6766

Website: <https://www.nassaucountyaquariumsociety.org/>

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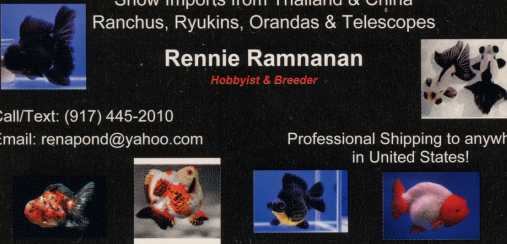
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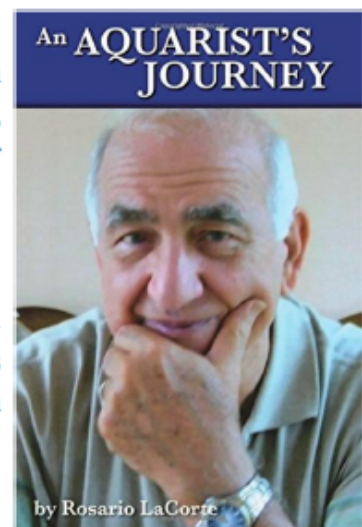


An Aquarist's Journey

Rosario La Corte is one of the world's leading authorities on breeding fish and he has written numerous articles and books, contributing greatly to our understanding of fish and their habits.

Now, for the first time, here is a compilation of his travels, adventures, successes (and, very occasional failures) all relating to collecting, keeping, and breeding fish, and in his own words (and edited by **Modern Aquarium's** Editor, Dan Radebaugh).

Available in softcover at [Amazon.com](https://www.amazon.com)



Neocaridina Davidi

(aka Freshwater Shrimp aka Neos)

by Larry Thompson

Originating from Taiwan and southeast Asia, Neos have quickly spread across the world. Long a popular water pet, which I have seen personally spread throughout the market, they attract people who are not interested in fish. (Yeah, I know, they're weird but do exist.) Here are some facts, pros, and cons to the freshwater shrimp.

Freshwater shrimp come in a large variety of color morphs, but are green/brown in the wild. Neos feed on a variety of microscopic life, and are omnivores. They provide an important link between tiny and larger organisms in their food chain. They tend to be on the small size of an inch to inch and half. Males are smaller and skinnier, while females are larger, with wider tails for carrying the egg sack (aka "saddle"). Eggs can be watched developing in the saddle. Breeding starts around the two-month mark. Broods are 20 to 30 young, which take about 2 to 3 weeks to develop. Lifespans are around 2 years, depending on temperature of water.

Pros: Easy to get a colony started. Neos tolerate a large parameter range. Common varieties are inexpensive and easily found across hobby sources. Rare/weird variants exist to spark renewed interest. Peaceful and tolerant, to the point they can be placed with fish eggs to be cleaned off, Neos are welcome in a large range of community tanks and ponds. They are little vacuums, eating the uneaten food and detritus adding a food layer to tanks without the limitlessness of snails.

Cons: tolerating a large range of parameters, Neos have become invasive across the world in natural water systems. Yet tank crashes do happen still from their tiny delicate systems. Hard to net out due to their small size and "big" jerking behavior, Neos are small to the point of being easily preyed upon by larger organisms, aka tankmates, especially when young. They are also preyed upon by organisms which won't affect fish (such as *Planaria* worms). A high

amount of culling to required to keep colors consistent, yet they are also affected by inbreeding.

Neocaridina have made a splash in the aquarium hobby around the world. They provide some unique pros and cons to the water pet

hobby, and are popular to the point of having appeared in every Lancaster Aquarium Club auction over the past year!



Beloved Beluga Whale Hvaldimir Dead off Coast of Norway

A series by the Undergravel Reporter

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

Hvaldimir, a friendly and inquisitive beluga whale who had become a celebrity in Scandinavia, was found dead recently in Risavika Bay, off the coast of southwest Norway.

Hvaldimir became an overnight celebrity in 2019 when he was spotted off the northern coast of Norway. The beluga was unusually friendly with humans. There were reports and videos showing the beluga playing “fetch” with a rugby ball and retrieving and returning a GoPro camera that someone had dropped into the water. Hvaldimir would also reportedly rub against boats for attention and “nose” anything that looked like a target.

There was also widespread speculation that the whale had been a Russian “spy” whale. When Hvaldimir first appeared near Norway he was wearing a harness that bore the words (in English) “Equipment St. Petersburg.” The Russians have been known to train beluga whales for military purposes (the United States military has also trained dolphins), and satellite images appear to show whale holding pens in Murmansk, Russia. One former Russian marine researcher who escaped the country in the 1990s has stated (based on confidential sources) that Hvaldimir was a missing whale named “Andruha” trained by the Russian military to guard a naval base in the Arctic Circle. “Andruha” was reportedly a highly intelligent beluga who wandered off while being trained by the Russian military to

patrol in open waters. For its part, the Russian military has refused to confirm or deny whether “Andruha” was one of their covert cetaceans.

Hvaldimir received his (new) name in 2019, which is a portmanteau of hval (whale in Norwegian) and Vladimir (the Russian President). He then spent the last few years traveling up and down the coast of Norway, and eventually made it as far south as Sweden.

The beluga always delighted observers with his willingness to interact with humans, which only added to the speculation that he had been trained by the Russian military. Hvaldimir also appeared to be unable to feed itself initially but did respond to certain human hand signals. The Norwegian government eventually made arrangements with a few non-profit organizations to feed and track Hvaldimir’s movements.

Unfortunately, Hvaldimir was found dead

several months ago, floating off the coast of Norway. A few non-profits and activists raised concerns about Hvaldimir’s death, with one such group, OneWhale, stating that Hvaldimir’s passing was “not natural.” OneWhale had recently received permission from the

Norwegian government to relocate Hvaldimir to a wild beluga population in the Arctic Circle, and was monitoring the whale closely. A necropsy did not find any evidence that humans had caused Hvaldimir’s death, instead finding evidence that Hvaldimir’s death resulted from a stick that became lodged in his mouth.

Given the mystery and intrigue surrounding Hvaldimir’s life, it remains to be seen if that explanation will quiet questions about his death.



Sources:

<https://www.bbc.com/news/articles/c1ml3n1x4zro>

<https://www.npr.org/2024/09/03/nx-s1-5098968/hvaldimir-russian-spy-beluga-whale-dead>

From The Pages of Yesteryear

The Aquarium November 1948

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Koi Organisation International

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Q: What if there was a source right in your home, available 24/7/365, that could provide the information you want and need about Koi keeping? Wouldn't that be nice, not to mention convenient?

A: Good News! There is just such a source and it's only a click away on your own computer. Water Quality course suitable for ALL fish keepers! Learn something new today!

Current. Accurate. Useful.

www.KoiOrganisationInternational.org



