

modern AQUARIUM



May 2023
volume XXX
number 3

Greater City Aquarium Society - New York

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Series III Vol. XXX, No. 3 May, 2023

ON THE COVER

Our cover photo this month features a Green Dragon Bristlenose catfish (*Ancistrus* SP.). The photo is by Jan Sereni, who posted it on our Facebook Fishy Friends Phtotos page. Nice work, Jan!

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From the Editor

by Dan Radebaugh

Whew! Here we are back again on a Wednesday evening! Don't know why that seems to provoke such feelings of relief, but it does—at least for me. While last year we celebrated our 100th anniversary as an aquarium society, our magazine, **Modern Aquarium**, has a pretty nice history of its own. Please take a look at page 19 for Joe Ferdenzi's account of the history of our magazine. This story was originally printed in the January issue of 1994, which was the first issue of what we now refer to as Series III of **Modern Aquarium**, which is what each of us Greater City members receives at each meeting. On the next page, Joe's review is followed by Warren Feuer's first "From the Editor's Desk," of which this present column is a descendent.

Fittingly enough, I was looking through a couple of old issues of **Modern Aquarium** (series II) that I had somehow not read yet, and found a couple of articles that I think are well worth sharing even at this late date. The first of these is an appreciation of Rosario LaCorte by Jan Padovani, which I found to be really nicely done, and I hope that you will enjoy reading it as much as I did. The second, a technical, illustrated look at how fishes breathe, will go unidentified for the present. Watch for it in our June issue.

It's been a little while since we've seen an article from Tom Warns, but he makes a big return! Be sure and see his article, "When Was The First Aquarium Created?" on page 9. Also in an historical vein (I love it when a plan comes together!) is Joe Ferdenzi's article, "New York's First Aquarium Mega Store (Maybe)". I have to say that I am stunned by the research that had to have gone into these two articles! Thanks, guys! May the Force stay with you!



Over the years we've presented several articles from Derek P.S. Tustin, including one that was submitted directly to us by Derek. This current article (see page 23) is about a fish that most of us will probably not come in contact with, as it is banned in the U.S. However, there are lots of them in Florida! Sold as food fish, the most common story there is that a truck transporting them along the Tamiami Trail went into a ditch and released enough of them to take over the southern part of the state. This may be literally true or not, but by now there are so many invasive species in that state that hardly anyone pays much attention any more. Ironically, this at a time when many *native* species there are under tremendous pressure due to habitat loss and climate change. But as Derek points out in his article, most of us here in New York are unlikely to encounter one of these "walking" catfish in the wild, and they get too big for most home aquaria.

By the way—the Undergravel Reporter column this month was inspired by a member suggestion. If you should have an idea that you think would make a good subject for Undie, by all means tell us about it!

Oh! Almost forgot! If you look at page 1 of this issue (the Contents page), you'll see a QR Code toward the bottom of the "blue" area. If you scan this with your cell phone it should take you straight to our Website! Thanks go to Jason Kerner for thinking of this and executing!





GCAS Programs

2023

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

Articles submitted for consideration in *Modern Aquarium* (ISSN 2150-0940) must be received no later than the 10th day of the month prior to the month of publication. Please email submissions to gcas@earthlink.net, or fax to (347) 379-4984. Copyright 2023 by the Greater City Aquarium Society Inc., a not-for-profit New York State corporation. All rights reserved. Not-for-profit aquarium societies are hereby granted permission to reproduce articles and illustrations from this publication, **unless the article indicates that the copyrights have been retained by the author**, and provided reprints indicate source, and that two copies of the publication are sent to the Exchange Editor of this magazine (one copy if sent electronically). For online-only publications, copies may be sent via email to gcas@earthlink.net. Any other reproduction or commercial use of the material in this publication is prohibited without prior express written permission.

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

President's Message

by Horst Gerber

I can't report much on our most recent meeting, since I couldn't attend. I know what you are thinking, but no, I did not forget about the meeting date change to Thursday evening.

What does it mean to have an aquarium club that is considered top notch? There is an old line about the best aquarium club being the one you belong to. There is certainly some truth to this, but what have we done that has earned respect and praise from fish people? These are questions I asked at a recent board meeting. I believe that it starts with a club that becomes one with its members and grows with them, evoking a sense of family. Another part is that it provides a place where ideas and information are shared, creating an ongoing sense of belonging and mutual respect. Each member should be treated with respect, irrespective of how much or how little knowledge and experience they possess when they walk in the door. In the end, we're all here to learn, and if possible to enjoy ourselves in the process. This can be from listening to our expert speakers, or from an interesting article in **Modern Aquarium**, or maybe just from chatting with other members who have similar interests in fish, or maybe even very *different* interests in fish! Either way, we still learn! Even our raffles and auctions are, or can be a learning experience.

We have been fortunate in having a group of members who want to keep our club and meetings going during these Covid-plagued past few years. It has not been an easy or simple thing to do. Remote solutions, such as Zoom, have been a life-saver in keeping clubs going, and not just our own. A special thank-you goes to Jason Kerner, who really stepped up to the plate on this. All in all, as we pursue greater knowledge about the what and hows of our hobby, I just have to say "keep up the good work!"

By the way, I've just learned that the LIAS will be holding its first meeting in over two years on Friday, May 19th at the AMVETS Hall Post 48 in Lake Ronkonkoma. This is only a little over a mile north of the expressway. The meeting will start at their usual eight o'clock, but you should arrive earlier to settle in. Tom Keegan will be their new president.

There will be a Basket Raffle with some nice larger items, and of course their regular raffle. Also a fish auction! They hope people will be bringing in fish that they have been breeding or that they want to auction to make room for new ones. We wish them the best of luck!

Horst



Tonight's Speaker: May 3, 2023

Emiliano Spada, Speaking on Pre-Electric Aquarium Paraphernalia.

Emiliano is an Italian collector of aquarium antiques, an author, a photographer, an aquarium designer, and a member of the advisory committee of the Museum of Aquarium and Pet History (San Luis Obispo, California).

Besides several aquariums, fish bowls and stands, ornaments, fish food tins, books, catalogs, magazines and ephemera, his stunning collection encompasses many paraphernalia of yesteryear such as air and water pumps, heaters, filters, hot air engines and lots of other items used by aquarists to keep fish.



During his presentation Emiliano will cover an overview of the paraphernalia from the pre-electric era, explaining how they worked despite the absence of electricity and how they helped the early generations of fishkeepers.

His articles on aquarium history are posted monthly on moaph.org.



Emiliano's illustration of an early aquarium advertisement showing one of the first heating systems, Thermocon, from Germany.



Fishy Friends' Photos

by Greater City Aquarium Society Fishy Friends

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



Victor Huang



Jules Birnbaum



Joseph Gurrado



Nicki Bonds

Black rams but
in love with
the golds



Prasp Pash



Jan Sereni



Dan Radebaugh





The MUSEUM OF AQUARIUM & PET HISTORY



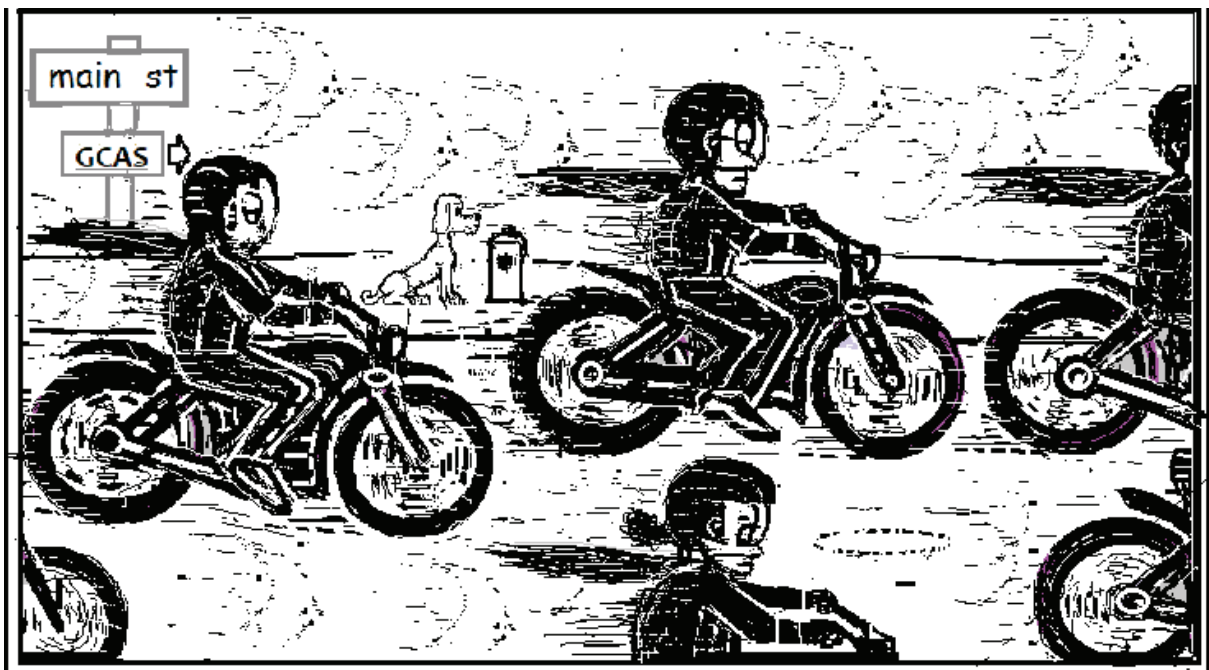
If you like history, and you like pets, then this is the place for you. Dedicated to the history of aquarium & pet keeping, The Museum of Aquarium & Pet History includes a huge depository of over 3,000 items all focused on the pet industry. From antique fish bowls, aquariums and cages, to foods, medications,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

moaph.org

<https://moaph.org/>



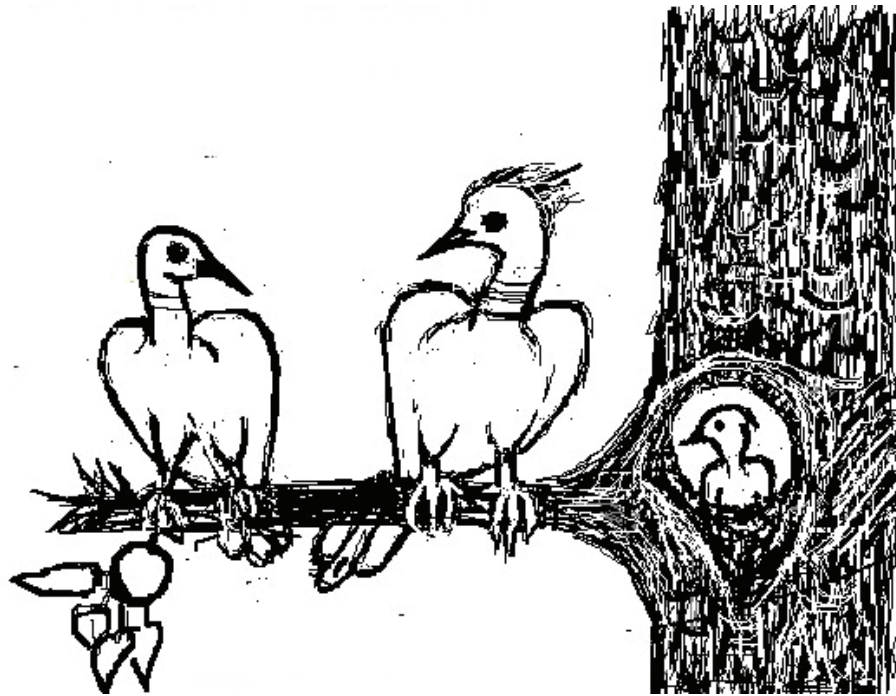
April's Caption Winner: Matthew Jerry O'Farrell



I hope they don't Fishtail!

The Modern Aquarium Cartoon Caption Contest

*Modern Aquarium has featured cartoon contests before, and they're back! You, the members of Greater City get to choose the caption! Just think of a good caption, then mail, email, or phone the Editor with your caption (phone: 347-866-1107, fax: 877-299-0522, email: gcas@earthlink.net). **Your caption needs to reach the Editor by the third Wednesday of this month.** We'll also hand out copies of this page at the meeting, which you may turn in to Marsha or Dan before leaving. Winning captions will earn ten points in our Author Awards program, qualifying you for participation in our special "Authors Only" raffle at our Holiday Party and Banquet. Put on your thinking caps!*



Your Caption:

Your Name:



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

When Was The First Aquarium Created?

It Depends On How You Ask!

by Thomas Warns



Central Garden Pool in the Garden of Nebamun's Tomb Painting, British Museum, late 18th Dynasty, circa 1350 BCE
(Photo in public domain)

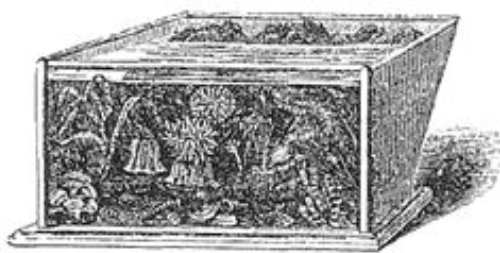
It turns out that discerning precisely who made the first aquarium, and when, is more of a philosophical question than a historical one. Fishponds, both for aquacultural and ornamental purposes, have existed for thousands of years. Hieroglyphs and frescoes bear witness to the practice of wealthy Egyptians creating fish ponds in their gardens where they could raise fish until they were ready to be consumed. The Ancient Romans also kept fish ponds for ornamental and aquacultural purposes, calling them vivarium (literally, “place of life”), with eels apparently becoming quite popular.¹ Some people trace the beginning of modern fishkeeping to the Jin Dynasty in China (265AD-420AD), when Chinese nobility first began selectively breeding carp into the goldfish that we know today.

Respectfully, however, none of these cultures produced an aquarium. All of the examples above involved viewing the fish from above, and almost always in a pond (artificial or otherwise). According to certain definitions, these may have been considered aquaria. Merriam-

Webster defines an aquarium as “a container (such as a glass tank) or an artificial pond in which living aquatic animals or plants are kept.” The Cambridge Dictionary similarly defines aquarium as “a glass container or pool in which small fish and other water animals and plants are kept.” Neither of these definitions is satisfactory, as an essential part of the hobby is the ability to view the fish from essentially within their habitat, eye-to-eye, and not from the top down.

“Colorless” glass of varying transparency had existed since before the birth of Jesus Christ, but it would take quite some time for someone (that we know of, anyway) to attempt to use it as a container for viewing fish. In the 1500s, the wife of French physician Guillaume Rondelet is reported to have kept a fish alive in a drinking glass for three years. Plate glass was first created in France during the 17th century, though it would take centuries for it to be applied to the aquarium hobby.

Indeed, by the second half of the 18th century, people had progressed to the point that

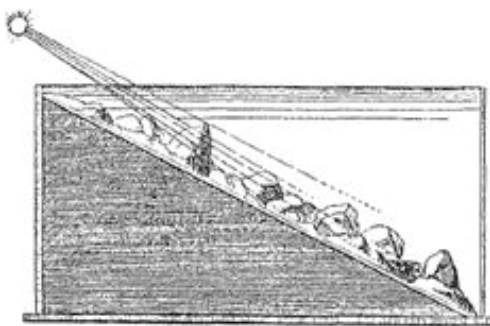


A. Slope-back tank

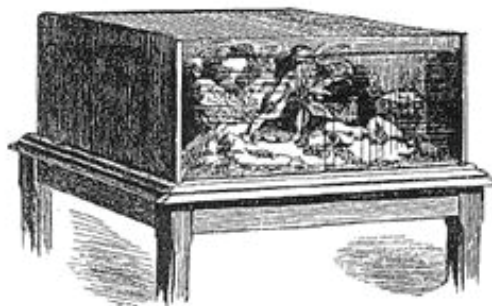
The purpose of the slope in the slope-back tank was, among other things, to imitate the slope of a rock pool.

The triangular space under the sloping back was a water chamber, communicating with the space in front. Animals, however, were barred access to the chamber.

The purpose of the chamber was merely to increase the volume of water in the tank so that there would be more oxygen available to the fish and anemones, and a larger buffer against small changes in the chemistry of the water.



B. Side view of a water chamber slope-back tank



C. Front view of a water chamber slope-back tank.

they kept goldfish in punch bowls, at least for limited periods of time. One early pioneer from the 1790s, Sir John Graham Dalyell, was known to collect and keep various invertebrate marine animals in jars. Sir Dalyell had a servant travel to the coast several times each week to collect seawater for water changes. One sea anemone he collected lived for almost sixty years in captivity. Nicknamed “Granny,” this sea anemone passed away thirty years after Sir Dalyell did, in 1887, and earned an obituary in numerous papers, including the New York Times.

None of the preceding examples can rightly be called an aquarium, however. The word aquarium was apparently first used by botanists, but adopted its present meaning thanks to English naturalist Philip Henry Gosse. Aquarium simply combined the Latin root aqua, meaning “water,” with the suffix -arium, meaning “a place for relating to.” Gosse sought a simpler term than aqua-vivarium, which was in use at the time. Gosse stated in his 1854 book, **The Aquarium: An Unveiling of the Wonders of the Deep Sea**, “let the word aquarium then be the one selected to indicate these interesting collections of aquatic animals and plants, distinguishing it as a Freshwater Aquarium, if its contents by fluvialite, or a Marine Aquarium, if it be such as I have

made the subject of the present volume.”

The decades prior to Gosse’s book adopting the term aquarium provide the first legitimate aquaria, though the precise answer is still up for debate. In 1829, Nathaniel Ward discovered that plants could be self-maintained in closed glass containers. “Wardian Cases,” as Ward’s glass containers for keeping plants came to be known, were a popular fad in the 1830s and 1840s, with ferns being the most popular plant to keep. In 1841, Nathaniel Ward was said to have first established a twenty-gallon freshwater proto-aquarium, though it was in an “earthenware vessel.” Throughout the 1840s, Ward is said to have experimented with various home aquaria, which were more or less upside-down Wardian cases.

Other individuals experimented with marine proto-aquaria in that same time period. In 1842, Dr. George Johnston filled a glass jar with sea water and a number of organisms, including seaweed, corals, mussels, and a sea star. Dr. Johnston described how the organisms flourished for at least eight weeks. Another individual, Anna Thyne, experimented in 1847 with raising marine corals, sponges, and other small marine creatures in glass jars. Her corals and sponges lasted for several years. 1845 was a crucial year because

in that year, the glass tax that had been passed to fund the Napoleonic Wars decades earlier was finally repealed, which would shortly thereafter become a boon to the burgeoning aquarium hobby.

The turning point for the aquarium hobby came in 1850, when Robert Warrington began his experiments into the “balanced” aquarium. While the concept of a “balanced” aquarium—i.e. one that was self-contained and stable for an indefinite period of time—was not Warrington’s invention, Warrington was certainly critical in taking the concept mainstream. Warrington described his studies into the subject in great detail, earning him greater fame than either Dr. Johnston or Anna Thyne. Warrington placed two small goldfish in a container with some *Valisneria spiralis*, theorizing that the aquatic plant would provide oxygen for the fish. When the decaying leaves of the *Valisneria spiralis* began to cloud the water, Warrington responded by placing a few aquatic snails in the aquarium. Warrington thus created a stable ecosystem where the aquatic plant provided oxygen for the fish and food (decaying leaves) for the snail, the snail broke down the decaying plant leaves, and the fish ate the eggs and offspring of the snails.²

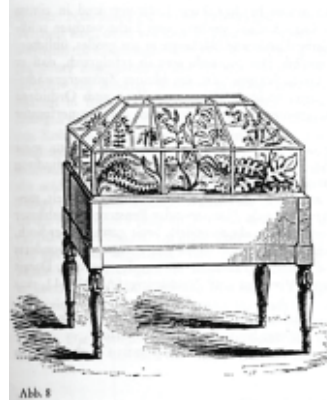
Warrington’s findings, once published, created intense interest among the public in raising fish in one’s own parlor room, and developing the right vessel for such an endeavor began in earnest. Warrington’s fish tanks were typically made of slate, with a front pane of glass, and a sloped back. The panes of glass and slabs of slate were held together with steel. The sloped back and slate exterior was said to have moderated the

effect of the sun and heat on the aquarium water, and was also said to have lent great strength to the tank.

By the 1850s, so-called “Warrington Cases,”³ appear to have proliferated. Gosse criticized the slope back design, finding that it made the tank far too dim to observe the fish. Gosse instead encouraged the development of aquaria with glass on all sides, often with interesting adornments on the corners. By 1853, the London Zoo is said to have had multiple aquaria with glass on all sides based on Gosse’s commentary, and by 1856 another naturalist named Shirley Hibberd published a book with illustrations of private homes containing all-glass aquaria.

Where does that leave us? The Warrington cases appear to be, by all accounts, the first true aquarium—it was a purpose-built container filled with water to house fish, with at least one transparent side that allowed the fish to be viewed from the side, and it provided the fish with a stable environment it could live in indefinitely. Gosse deserves credit for creating and championing aquaria with glass on all sides, which has been adopted universally in modern fish tanks and provides a superior viewing experience. I do not cast judgment on those who say that Dr. Johnston and Anna Thyne built the first aquaria, but I myself cannot agree. Dr. Johnston and Mrs. Thyne merely placed fish into glasses and jars, but those vessels were not purpose-built specifically for keeping fish. Their contributions to the aquarium hobby, however, like the contributions of everyone mentioned in this article, are worth remembering and appreciating.

Four different styles of “Wardian cases.”



Notes:

1. To read more about fishkeeping in Ancient Rome, please read my article from April 2019, titled “A Brief History of the World (of Ancient Roman Fishkeeping).”

2. The “balanced aquarium” would turn out to be something of a myth. Almost one hundred years later, Dr. Charles M. Breder, Jr., an ichthyologist and aquarium hobbyist, actually measured the carbon dioxide and oxygen in aquarium water and discovered that the amount of oxygen produced by plants is actually quite miniscule, and that aquarium water is saturated with oxygen because of the rapid transfer of oxygen at the air-water boundary. Still, Warrington (and Gosse) deserve tremendous credit for their scientific approach to the aquarium hobby, and for publishing their studies in order to further the hobby and increase public interest.

3. Aquaria of various designs in the 1850s were marketed as Warrington cases, likely to play on the popularity of Wardian cases that already adorned the parlours of many Victorian homes. Though named after Robert Warrington, the glass aquarium was popularly known as a Warrington Case.

4. Endnotes: Much of this article is sourced from two publications. The first is Klee, Albert, **The Toy Fish: A History of the Aquarium Hobby in America - the First One-Hundred Years**, Revised and Expanded Edition (Finley Aquatic Books, 2003). The second is Kisling, Vernon, **Zoo and Aquarium History: Ancient Animal Collections To Zoological Gardens**, First Edition (CRC Press, 2000).



An advertisement for CARES (The Aquarium Hobby Preservation Program). The central theme is "Add the final notch to your belt!", with the text in large, bold, yellow letters. Below this, a black belt with a silver buckle is shown, with several award plaques and logos pinned to it. The plaques include: "AMERICAN CICHLID ASSOCIATION Organization/club", "Show Fish" (with a fish and trophy), "Photograph" (with a fish), and "Breeding" (with a fish). A circular logo for "THE AQUARIUM HOBBY CARES Preservation Program" is also shown. A speech bubble contains the text: "Distinguish yourself as an advanced hobbyist by keeping and breeding a CARES endangered fish Today! Give back to the hobby that has given so much to you! Together we can and WILL make a difference! ❤️". At the bottom left, the website "caresforfish.org" is displayed. A small CARES logo is also visible at the bottom right of the belt area.

New York's First Aquarium Mega Store (Maybe)

by Joseph Ferdenzi

President Emeritus, Greater City Aquarium Society

Those of us who have been in the aquarium hobby for awhile usually have fond memories of some pet shop from our youth that no longer exists. In New York City those remembrances often center on shops in the borough where we grew up. In my case that was Queens, so I recall Cameo Pet Shop in Richmond Hill, Coral Aquarium in Jackson Heights, Coral Gables Pet Shop in Corona, and Ed's Aquarium in Forest Hills. Of course regardless of which borough you lived in, almost everyone was familiar with the nationally famous Aquarium Stock Company in Manhattan. Unfortunately, all these great stores are gone, as are most likely any stores in the borough where you grew up. But I dare say that no one now living remembers the aquarium store that is the subject of this article, which was probably one of New York City's very first aquarium stores: William Stoffregn of Manhattan.

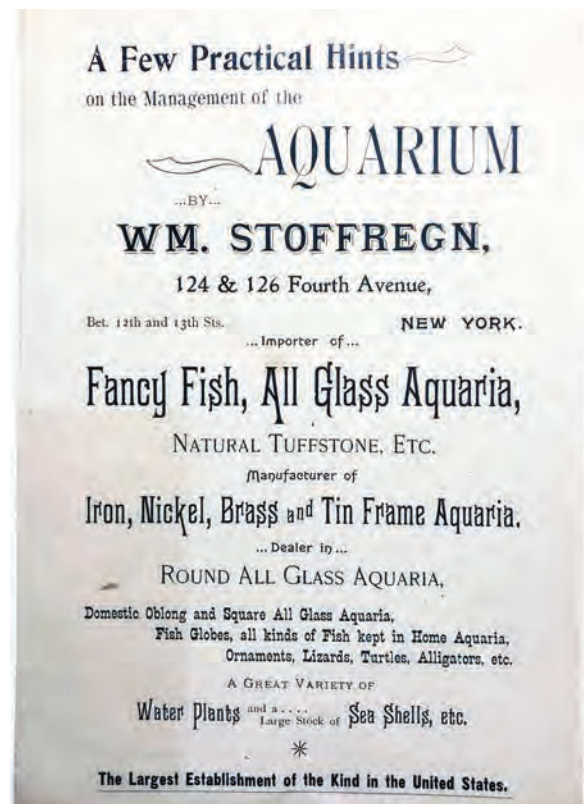
My interest in this store was aroused by the fact that I own a very rare piece of ephemera: a four page handbill advertising the Stoffregn store. Unfortunately, there are no dates on this small brochure, but given the typeface and style, and the fact that in its discussion of the "self-sustaining" aquarium, no mention is made of any tropical fish other than the Paradise Fish, I would estimate that it was printed before 1910. By contrast, various sources give the establishment of the Aquarium Stock Company as either 1910 or 1912.

Thinking that you will find this brochure to be very interesting reading, we are reprinting here in full the first three pages (the fourth page is dedicated to birds and bird supplies). Note how on the first page the store heralds itself as "The Largest Establishment of the kind in the United States." Is that mere hyperbole? Further research discloses that it may not be.

Let's start with the fact that this store was around before many others and that it was located in Manhattan at a time when all the biggest and most famous emporiums were located there. The earliest printed reference that I could find for this store dates back to 1899.

It is in a journal entitled "Proceedings of the Board of Trustees of the College of the City of New York." The journal contains a list of purchases and expenses, and included among these is an entry for an "Aquarium" purchased from Stoffregn at a cost of \$38. Since \$1 back then is roughly equivalent to \$36 in 2023, that means the aquarium cost them \$1,368 in today's dollars! That must have been one huge and elaborate aquarium! The fact that it was purchased from Stoffregn is an indication that it was the preeminent aquarium store of the time and might have indeed lived up to its boast of being "The Largest Establishment of the Kind in the United States."

Another indication of Stoffregn's preeminence as a pet shop is to be found in a U.S. Senate report from 1922. The report was focused on the cost of imported goods as compared to their retail sale price in the U.S. One of the goods listed is a wire bird cage from William Stoffregn of 124 Fourth Avenue (the same location as on the handbill). The reason



A Few Practical Hints on the Management of the

... Aquarium ...

While the interest of the public has largely increased for the Aquarium through the opening of Public Aquaria and being adapted as an interesting study in the Schools and Colleges, also as a pastime in many homes, a few practical hints how to keep and care for the same will be appreciated. The Aquarium should be one of the most ornamental, entertaining and instructive features of every home, its Management is perfectly simple by obtaining as we term it

The Self-sustaining Aquarium.

Any transparent vessel capable of holding water will answer the purpose and first of all the vessel in which the fish are to be placed should be perfectly clean and the water no less so than the water we drink. Each fish, from three to four inches in length, should have a gallon of water to live in. In other words, five fish in a five-gallon vessel or ten fish in a ten-gallon vessel. Smaller fish may, of course, be more crowded. The over-crowding of the Aquarium is perhaps the means of killing more fish than any one thing else.

The common theory that the water must be changed every day or two is erroneous; and in cold weather, frequent changing of the water, causing sudden changes of temperature, is absolutely injurious. Of course, where three or four fish are kept in a gallon of water in a dark poorly ventilated room the water must be changed often; but when an Aquarium is placed where there is good light, or, still better, where the sun will shine on it an hour or two a day, provided with a proper portion of aquatic plants and sufficient sand for the same to grow in, there is no occasion to change the water, except when the Aquarium is to be cleaned. Cleaning, itself, is more a matter of taste than necessity in many instances. Some people object to the formation of algae others again prefer to see algae covering the glass, and

the top of the water with a profuse growth of plants, thereby giving the whole a more natural appearance.

It will be observed then that good ventilation, good light, healthy aquatic plants, clean sand and a proper proportion of fish to the quantity of water are absolute necessities to the proper and successful management of the Aquarium. It is the growing plant that produces the necessary oxygen for the fish and absorbs the carbon the fish throws off, which would otherwise foul the water, that makes the *self-sustaining Aquarium*. A few tadpoles and snails are a decided advantage in an Aquarium, as they consume much of the decaying vegetable matter, and measurably prevent the formation of algae on the glass.

Sunfish, Catfish, Eels, Rockfish, Turtles, Sticklebacks and Paradise-fish should never be associated with Goldfish as they are injurious to them.

Fish, like human beings are often killed by kindness in over-feeding them. They may be treated to choice dainties in limited quantities, occasionally, but the only absolute safe diet I recommend is my

German Natural Fish Food,

which ought to be given once a day regularly, and in such quantities only that the fish consume at once.

When the fish remain down in the water it is an indication that all is right but when they come to the top and gasp for fresh air it is a sure sign that the water is foul, or at least, that the oxygen is exhausted. This may happen at any time from neglect of proper care, not otherwise, except during a long continuation of cloudy weather, which interferes with the action of the plant in the water, the change of water becomes necessary. Of all animal house-pets fish are the least trouble and expense if their treatment is properly understood.

Respectfully yours,

WM. STOFFREGN,

124 & 126 Fourth Ave., New York.

a bird cage from the Aquarium Stock Company, although a well-known store by 1922, because it dealt solely in aquariums and fish).

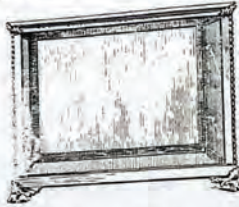
This Senate report establishes that Stoffregn was still in business in 1922, which would show that it was operating for over two decades, and probably at the same address. Additionally, at some point Stoffregn offered a catalog of aquarium fishes and supplies. This is documented by a letter dated November 10, 1914 in the collection of the Schenectady County (NY) Historical Society. It's a letter from Charles Steinmetz (a renowned scientist and professor at Union College in Schenectady) requesting the catalog from Stoffregn.

Another interesting fact about Stoffregn is that they apparently did not believe in advertising in aquarium magazines. After examining numerous issues from the 1910's 20's, and 30's, I have been unable to locate even one advertisement. This is especially curious given that when the city-owned New York Aquarium published one of its very first official guides in 1901 (the aquarium was founded in 1896), Stoffregn had a prominent full-page ad on the inside front cover (see illustration). Like the handbill, it touts itself as "The Largest Establishment Of The Kind In The United States." Moreover, I did locate a small ad for Stoffregn in a 1920 issue of a magazine called **The Guide To Nature**, which notes they ship livestock, but "entirely at the buyer's risk." And, in a sign of the times, they also tout that they have a telephone! So they did advertise, but for reasons unknown, not in aquarium magazines. Maybe they thought their low circulation numbers did not justify the expense? Thanks to my friend Lee Finley, I have a photocopy of one of their early catalogs. It is approximately 9 X 6 inches, and consists of 12 pages. The selection of tanks and bowls is quite extensive, but the fish not much so. See illustrations of a few sample pages.

I do not know what happened to their establishment after 1922. Did it go under during the aftermath of the great stock market crash of 1929? I do not have the answers, but from what I have gathered, I believe that the Stoffregn store once again reaffirms New York City as the most important center for the aquarium hobby that arose during the 19th Century's "Gilded Age."

this is significant is because a perusal of many of the goods purchased for this report reveals they were from the landmark stores located in Manhattan, such as Macy's, Bloomingdale's, Gimbel's, and so forth. So it seems the Senate staffers went to stores that were well known in the field (of course they could not have purchased

4 Wm. STOFFREGN, 124 AND 126 FOURTH AVE., N. Y.
Fancy Japanned Tin Frame and Glass Bottom Aquaria.
 Black or Green Enameled. Gold Trimmings and Brass Feet.



No.	LENGTH.	WIDTH.	DEPTH.	HOLDS.	PRICE.
1.....	14 in.....	10 in.....	12 in.....	5 Gal.....	\$1.00
2.....	16 in.....	10 in.....	14 in.....	7 Gal.....	4 75
3.....	18 in.....	10 in.....	15 in.....	10 Gal.....	5 50

Six Sided Japanned Fancy Tin Aquaria.
 Black or Green Enameled. Gold Trimmings and Brass Feet.



No.	DIAMETER.	HEIGHT.	HOLDS.	PRICE.
1.....	12 in.....	10 in.....	2½ Gal.....	\$4.00
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3.....	18 in.....	15 in.....	9 Gal.....	8.00

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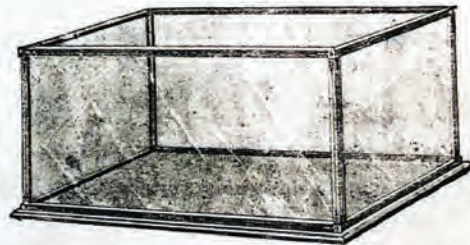
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Black or Green Enameled.



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2.....	24 in.....	14 in.....	14 in.....	20 Gal.....	9.75
3.....	24 in.....	14 in.....	16 in.....	28 Gal.....	14.00

Polished Brass Frame and Slate Bottom Aquaria.

No.	Length.	Width.	Height.	Holds.	Price.
1.....	24 in.....	15 in.....	14.....	18 Gal.....	\$18.00
2.....	29 in.....	16 in.....	17.....	25 Gal.....	25.00

Brass Frame Nickel Plated Slate Bottom Aquaria.

No.	Length.	Width.	Height.	Holds.	Price.
1.....	16 in.....	8 in.....	10 in.....	6 Gal.....	\$8.50
2.....	18 in.....	10½ in.....	12 in.....	9 Gal.....	8.75
3.....	21 in.....	12 in.....	12 in.....	12 Gal.....	10.75
4.....	24 in.....	14 in.....	14 in.....	20 Gal.....	18.00
5.....	30 in.....	16 in.....	18 in.....	37 Gal.....	35.00
6.....	36 in.....	16 in.....	20 in.....	50 Gal.....	45.00

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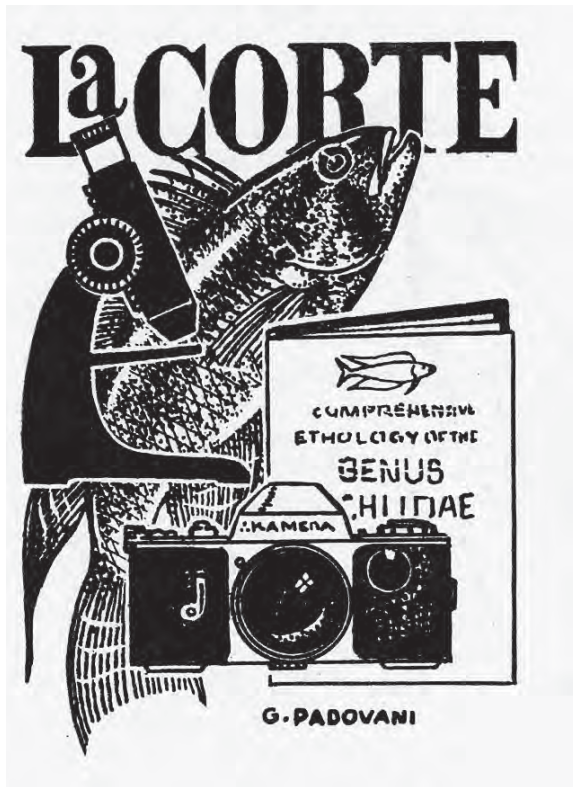
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Modern Aquarium



JUNE 1971

Cover photo of *Pseudotropheus zebra* pair by Don Sanford



By Gian Padovani, LIAS

During the years, as I became more involved in the tropical fish hobby, I became conscious of a name that, because of the frequency in which it appeared in publications and because of its musical sound, left an indelible mark in my mind: Rosario LaCorte.

I finally got an opportunity to meet this legendary man when a mutual friend, John Cillo, himself a breeder and hobbyist of considerable note, agreed to introduce us. It was with no little expectation and excitement, at least on my part, that we drove to Elizabeth, New Jersey, to Rosario's home. We found him busily at work in his enlarged two car garage, which is his fish room.

After the introductions, he proceeded to show us the neatly arranged setup. At once it became apparent to me that this setup was different. It wasn't larger or more elaborate than others I had seen; rather it reminded me more of an exotic aquarium shop. That is, because instead of seeing one species in all of its growing stages, many different species were present. However these were species that were hardly ever seen by the average hobbyist, and Rosario was already in the process of breeding them. Being the dedicated man that he is, LaCorte has had many firsts, but he is more interested in success itself, rather than to have the success acknowledged or publicized.

He has disproved the common theory that wild Discus cannot be bred in captivity. He is currently raising a strain, developed from his own wild stock, so beautiful that it is impossible to describe. I was impressed when I first confronted the Wattle strain. I could only gasp when I saw Rosario's development, sporting dazzling, almost electric colors, these young discus swam with fins almost locked in erect position. I thought that I was familiar with most of the new imports from Lakes Malawi and Tanganyika. Rosario has cichlids from these exotic places which I had never seen (some as yet unnamed). The amazing thing is that some of them are already swimming amidst their fry.

Although I was impressed by his fish, I wanted to find out more about the man behind the success, and though we had met only a short while ago, a few characteristics soon became apparent. Rosario LaCorte is more of a scientist than a breeder. He will explore and experiment with the determination and dedication exhibited only by few persons. He is not interested in making money with his fish; whatever he sells is surplus or has served its purpose. He is a quiet, intense man who doesn't herald or brag about his accomplishments, and it seems strange to me that fishes have been named after collectors, and none "..... LaCortei" to honor a man who has contributed so much to science and the hobby.

When I asked him for the secret of his success, he jokingly answered, "because I am a stubborn Sicilian..." His wife Jeannie however, summarized the true answer. Since he

This article is reprinted from the June 1971 issue of Modern Aquarium

was a little boy, Rosario has thought, dreamed, and lived FISH. This interest continues even after the fish have died. In a corner of his fish room, which is more like a laboratory, one can see a powerful microscope and dissecting tools used to probe for unanswered questions.

Rosario LaCorte is a man of many talents. Aside from the obvious, he is an accomplished writer with many articles to his credit. He has taken excellent photographs of his fishes, which he uses in his not too frequent lectures and to illustrate his articles. Last but not least, he dabs in oils and pen and ink.

His family adores him and the feeling is reciprocal. His wife is a warm, friendly woman, with the bubbly personality that complements Rosario's reservedness. When it came time to part, I felt very elated in the knowledge that my life has been enriched with the meeting of Rosario LaCorte.



The NEC 2022

Articles Competition

OPEN CATEGORY

1. My Life With Fish - Science Projects	Jason Gold	Modern Aquarium	GCAS*
2. Dehumidifier Or Air Exchanger?	Dan McKercher	Modern Aquarium	GCAS*
3. Some Tricks From My Fishroom	Jules Birnbaum	Modern Aquarium	GCAS*

BREEDING CATEGORY

1. Breeding <i>Fundulopanchax amieti</i>	Joel Antkowiak	Tank Tales	ACLC**
2. Breeding <i>Nothobranchius guentheri</i>	Joseph Ferdenzi	Modern Aquarium	GCAS*
3. Breeding <i>Girardinus metallicus</i>	Dan Radebaugh	Modern Aquarium	GCAS*

HUMOR

1. Cartoon Caption Contest	Denver Lettman	Modern Aquarium	GCAS*
2. None submitted			
3. None submitted			

CONTINUING COLUMNS

1. The Undergravel Reporter	The Undergravel Reporter	Modern Aquarium	GCAS*
2. The Traveling Aquarist	Joel Antkowiak	Tank Tales	ACLC**
3. FIN FUN (Puzzle Page)		Modern Aquarium	GCAS*

JUNIOR AUTHOR

1. None
2. None
3. None

*Greater City Aquarium Society

**Aquarium Club of Lancaster County



The Origin of modern AQUARIUM

Series III

By Joseph Ferdenzi

Sequels are generally not as good as the original. Ask any "Rocky" movie fan. So, why is the Greater City Aquarium Society reviving Modern Aquarium, a hobby classic? Because there are exceptions to every rule. Didn't "The Godfather, Part II" also win a Best Picture Academy Award? We strive to repeat our prior success with Modern Aquarium, Series III.

With this first issue in Series III, it seems appropriate to briefly discuss Series I and II. From best as can be gathered, Series I began some time in the mid to late 1950's. From personal correspondence with Gian Padovani (the first co-editor, along with a gentleman by the name of Peter Nicholas), a few facts can be learned. The original mission of the magazine was to fill in some of the void of information caused by the paucity of aquarium magazines existent at that time. The now venerable Tropical Fish Hobbyist (TFH) was then in its infancy. The main magazine relied on by aquarists at that time was Innes' classic, The Aquarium.

However, some aquarists had come to believe that the content of The Aquarium had grown a bit stodgy. In a sense, according to Padovani, this gave rise to the origin of the title Modern Aquarium, i.e., a modern version of The Aquarium. Padovani does not recall who exactly came up with the title idea, but he is fairly certain of its derivation. He does not recall that anyone ever suggested the title as a repetition of any previous magazine published by the Society. Padovani's recollections seem to dispose of the notion that, at some time in its past (the Society was founded in 1922), the Society had previously published a series called Modern Aquarium. Hence, the 1950's series is being referred to as Series I.

It is unclear how frequently and for how long Series I was published. Unfortunately, no

complete set is known to exist. The author has three issues which were provided by long-time member and past President, Gene Baiocco. The earliest issue is from June of 1957, and features a pair of *Colisa lalia* (dwarf gouramies) on the cover. The issue is designated as Vol. I, No. 4. The second issue is dated December of 1957 (no volume or number) and features a fanciful party scene on the cover. The last issue is from January 1958 (again no volume or number) and has a *Synodontis angelicus* on the cover. Apparently, the magazine was intended to be a monthly publication. Each issue had, respectively, 12, 8, and 8 numbered pages — rather thin. The pages of the magazines were 8½" x 7".

Thanks to Padovani, a professional artist, the graphics and "look" were quite good, but it suffered, especially in comparison to Series II of the magazine and today's computerized "print shops," with regard to its printing quality. (It should be noted that Padovani also contributed his artistic talents to many issues of the Series II Modern Aquarium.) Although the club endeavored to use the best production techniques available at the time (Gestetner stencils, etc.), budget constraints foreclosed the use of a professional printer. Owing to these various limitations, it does not appear that Series I magazines ever enjoyed widespread popularity outside the club's immediate membership. However, they do provide details regarding the activity of the Society. From that perspective, they form an important part of the club's historical archives. At some point, the magazine ceased being produced, but it is unclear when.

In 1968, under the editorial leadership of Dan Carson, Modern Aquarium (Series II) was resurrected. The first issue was published in November of that year, and during its six year run (the final issue was published in December of 1974), it became a hobby classic. The reasons for that are many.

Firstly, the staff of the magazine was made up of a very talented and dedicated group of aquarists. They knew how to keep and breed fish. They knew the other leading hobbyists of their day — both within and without Greater City. This enabled them to write articles of interest to aquarists and about aquarists. The series of biographical profiles of leading hobbyists, called "Hobby Builders," served to chronicle a partial history of the hobby. These profiles are enjoyable, and important reading even today.

Secondly, the magazine featured many excellent black and white photographs. Because the aquarium hobby is an essentially visual one,

This article is reprinted from the January 1994 issue of Modern Aquarium -- Series III number 1.

these photos played an large role in making Modern Aquarium a significant magazine. Even today, it is rare to encounter a club publication that features such extensive use of photography.

Finally, the magazine was composed and printed using professional printing methods. This gave the magazine a crisp and "finished" look. Indeed, many of the issues feature a cover price (which ranged over the years from 35¢ to 40¢) because the issues were sold "over the counter" in pet shops! Under a succession of editors, the longest reign being that of Herb Fogal, the magazine was produced on a regular monthly basis, with the exception of the months of July and August. Volume I consisted of eight issues. Succeeding volumes began in September of each year, and ran ten issues per volume.

The final volume, Volume VII, comprised four issues.

The magazine was always printed in an 8½" x 5½" format — the same as the two national magazines of the day, The Aquarium and Tropical Fish Hobbyist.

With all these attributes, it is little wonder that Modern Aquarium Series II became widely regarded, and has since become a collector's item. Some complete sets are known to exist. Anyone seeking to research the history of the aquarium hobby in America for the years 1968 to 1974 would need Modern Aquarium as a reference source. It is hoped that Modern Aquarium, Series III, will become as valued as its progenitor.



From The Editor's Desk



by Warren Feuer

When you see professional athletes interviewed after an important victory, very often the stars of the game will make a comment like "I couldn't have done anything without my teammates". Now don't get me wrong, I'm not trying to compare the creation of Modern Aquarium to a Super Bowl victory, but the staff of Modern Aquarium has worked just as hard at achieving our goals as the athletes you see interviewed on TV. They, being professional athletes, receive different rewards than we do, mostly in the form of THE BIG BUCKS, but our achievement shouldn't be down played just because we do this for free. I'm beginning to digress from my point so let's forget the reward issue for now.

What I'm getting at is the fact that this is a team effort involving many players and my editorial direction is just one small part. So let me take this opportunity to thank my fellow teammates and welcome you, the reader, to the premier issue of the new Modern Aquarium.

It is a tremendous privilege to be working with such talented and committed people.

Our Art Editor, Stephan Zander, has an incredible talent for layout and format. Al Priest, my very capable Assistant Editor, makes magic occur from a Word Processor. Of course, we get our inspiration from Joe Ferdenzi, the Executive Editor, whose long time dream and goal has been to resurrect Modern Aquarium. In this issue, Joe has contributed an abbreviated history of Modern Aquarium. We also have a great Advertising Manager, Mark Soberman. Let me tell you, I've seen Mark in action and I know he'll be quite successful in getting advertisement for Modern Aquarium.

One thing that makes Mark's job easy is the quality of this paper and all of the very talented and committed people I've mentioned above can all hold their heads up in pride over the work they've done here. Before I forget, there's one more very important group to thank, and that is the Board of Directors of Greater City. The Board has supported and encouraged the editorial staff through all of our efforts and growing pains, and having a board as supportive, helpful and competent as ours really makes what we do possible. Thanks so much guys.

So, if you like what you see, let the crew know. If you have suggestions as to what you'd like to see in Modern Aquarium in the future, let us know as well.





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



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Walking... (*Clarias batrachus*)

by Derek P.S. Tustin

One of the things that I've come to realize over my years of being involved in this hobby is that if you don't make mistakes, you never learn. Sometimes it is with a great deal of embarrassment that I admit to having done some of the things I have done, and one of the most embarrassing was trying to keep *Clarias batrachus*, the Walking Catfish.



The year after I joined DRAS, I lost the companionship of Nikki, my Black Lab / Dalmatian cross that I had since my years in university. She was a great dog, and I could go on and on for hours about the memories I have of her, but one of the two funniest I have of her involved a Walking Catfish. While a student at the University of Windsor, I had traded for a 190 litre (55 gallon) aquarium, and it was my first true large aquarium. Prior to that I had several small tanks, each about 20 litres (5 gallons) and each had been stuffed with fish. When I upgraded, I went slightly crazy and, after placing the inhabitants of my various other tanks in, purchased almost everything that caught my interest and that I could afford to full up the big tank. One of these fish was a piebald Walking Catfish. Now in those early days of my involvement with the hobby I didn't know much about water changes and proper maintenance. My idea of cleaning was to drain the tank, place the fish in buckets and scrub almost everything. The first time I did this after getting the Walking Catfish, I was in the process of re-filling the aquarium, filling and carrying buckets up from the downstairs bathroom, when Nikki, who was still upstairs, started a frenzied barking. I ran up the stairs to see what was wrong, and as I got to the top I saw Nikki crouched, her ruff up, barking at... the Walking Catfish flopping across the carpet towards her. You see, I hadn't covered the bucket and fish had obviously jumped out. I scrambled around trying, but not succeeding, to pick up the fish and every time I almost had it, the fish squirmed out of my grasp, heading each and every time towards Nikki, who continued to bark at this strange creature seemingly intent on reaching her. After about five minutes, I managed to get the Walking Catfish back into the bucket, throwing a towel over the top. But from that day on, I don't think poor Nikki ever trusted that anything good would come out of that aquarium.

In retrospect, I should have done a lot more research before I even considered purchasing the fish, but the local aquarium stores weren't all that helpful or knowledgeable. Windsor didn't (and still doesn't) have an aquarium society, and the boundless knowledge of the internet was not yet common. Detroit, for all its physical proximity, remained a foreign land, and I knew nothing about the clubs that I now know have been there for decades. So maybe my error is forgivable, but for those who aren't familiar with this fish that I will always remember with a smile, let me tell you a bit about it.

The Walking Catfish, *Clarias batrachus*, is native to South East Asia, being found in India, Sri Lanka, Pakistan, Thailand, Vietnam, Cambodia, Malaysia, and Indonesia amongst others in the region, and has also been introduced, both accidentally and intentionally, to other countries around the world. In its native range, the Walking Catfish is a valuable food fish, and is extensively utilized by both subsistence and commercial fisheries.

This article is reprinted from the Durham Region Aquarium Society's Tank Talk – May 2013 / Volume 40, Number 09

The fish now known as *Clarias batrachus* was first described by Carolus Linnaeus in 1758 as *Silurus batrachus*, with the current genus name of *Clarias*, derived from the Latin for “shining”, being erected by Johannes Scoploi in 1777. It belongs to the family of fish known as *Clariidae*, which encompass 84 species across 15 genera. The genus *Clarias* is by far the largest in the family, with 34 species.

In terms of body shape, the fish has a broad and flat head that then tapers to the tail, calling to mind the shape of a tadpole’s body. It has small eyes, a broad mouth (which cannot actually open very wide) and four pairs of barbels arranged around the snout. The



The dorsal and anal fins are long, terminating before the caudal fin, and the pectoral fins are very rigid. It is also able process oxygen through its gills. Unlike many other species of fish, the gills are actually supported by a special organ, and as a result when out of water, the gills, unlike those fish lacking the support for the gills, can still absorb oxygen directly from the air. The body is actually quite powerful, and the Walking Catfish is able to laterally flex its body back and forth. It is through the flexation of the body and the support of the body on the stiff pectoral fins that the fish is able to “walk” on land, and it can successfully do so utilizing the special gill organs to continue to process oxygen while out of water.

But why walking? In nature, it is known to inhabit lakes and rivers, but is more commonly found in areas where water can be intermittent. Such areas include muddy ponds, canals, ditches, swamps... basically areas where water can be present at one time and absent at another. Once the water disappears from a given location, the fish possesses the ability to locomote and continue to breathe until it reaches another body of water. The only limitation to its movement is the necessity for the skin to be kept moist.

There are three main variations of the Walking Catfish that are available to the aquarium hobbyist; the standard or natural strain, the piebald strain and the albino strain. The natural strain is usually a uniform brown-gray or gray colouration, with a light grey ventral surface, and has many small white spots along the lateral surfaces. The piebald strain, sometimes referred to as the calico strain, has a pinkish body and brownish coloured spots, similar in colour to the natural strain, scattered across the body. The third strain, the albino, has a pink body with red eyes. The latter two are by far the more commonly available in aquarium stores, probably due to their different appearance.

Due to its sheer tenacity, ability to survive, and its predatory nature, it has become an invasive species in many parts of the world. The website Environmental Graffiti lists it as #7 on the 12 Worst Invasive Fish on Earth (www.environmentalgraffiti.com/news-invasive-fish?image=7). In the United States it has become a significant invasive species, most notably in Florida, and all members of the *Clariidae* family are actually illegal to possess anywhere in the United States without a federal permit.

In Canada they are not deemed to be an invasive species, and likely will not be deemed one, given their inability to survive temperatures below 9.5°C (50°F). As such, they remain occasionally available for sale in aquarium stores, with the piebald and albino strains being most often seen. If keeping this fish, a large tank is recommended, with a soft substrate and decorations such as driftwood or smooth rocks placed to create hiding spaces. As I (and Nikki) discovered, the fish is an excellent jumper, and a tight fitting cover is a necessity. The fish is also known to occasionally gulp air from the surface of the aquarium, and seeing the fish do so should not cause undue concern.

They are greedy fish, eating everything that is offered, and as they grow, they will show no hesitation in eating smaller tank-mates. A varied diet of both meaty food and vegetable matter is recommended, but it should be noted that they will eat as long as food is provided, so it is very easy to overfeed. They also do not need to be fed every day.

Given their ability to survive, it is perhaps not surprising that given the proper environment they are actually very easy to breed. If you are trying to do so, it is recommended that you either obtain

a sexed pair, or begin with a small group of these fish in order to ensure that you have one of each gender. Once they reach sexual maturity, usually when they reach 30 cm (12") in size, and assuming you have one of each gender, a pair will be formed. Sexing of the fish is determined by examination of the genital papillae, with the male's being longer and pointed. The female may also appear rounder in the belly. Once the pair is formed, they will become very territorial, attacking any other fish in the area. All other fish, including any other *Clarias batrachus*, should be removed from the breeding tank, leaving the pair alone.



The pair will begin to swim side-by-side, with increased body contact. In nature, they would dig a cave in a riverbank, but in the aquarium they will substitute this by digging a pit in the substrate, where the eggs will be deposited. Over a period lasting almost a day, the pair will mate above the nest several times, producing as many as several thousand eggs. These eggs are negatively buoyant and will sink to the substrate, adhering where they fall.

After depositing the eggs, the female will retreat, and the male will begin to guard, swimming above the nest. After a period of 24 to 36 hours, the eggs will hatch, and the female will also start to engage in care, guarding the perimeter of the pair's territory, while the male continues to guard the area immediately above the nest.

For another two days the parents continue their sentinel duty, but then will begin to lose interest. After another three days, the fry will become free swimming, and should you be interested in rearing the fish, it is recommended you remove the fry to another tank, where small foods such as brine shrimp can initially be offered. The fry will apparently grow very quickly, soon reaching the point where bigger foods can be provided.

In many ways it is a shame that the size and legality issues make the keeping of *Clarias batrachus* problematic, because it truly is an interesting and fascinating fish that has the capacity to expand the horizons of an aquarist.

Latin Name	<i>Clarias batrachus</i>
Common Name	Walking Catfish
Length	60 cm (48" or 2 feet)
Temperature	20 – 36°C (68 – 78°F)
pH	5.5 – 8.0
Difficulty	Easy
Compatibility	Predator – Non-Community



Tales from the Tank

by Dan McKercher

Sam complains to the shopkeeper that his fish keep dying soon after he puts them in his tank. The shopkeeper says, “Bring in a water sample.” Sam has a blank look and then replies, “Nobody said anything about water...”

Police blotter: Two men are arrested for fist fighting over whose fish is better looking, while 6-year old Betty walks away with 1st place at the show.

Did you ever...

Look into one of your tanks and say, “who are you?”

Drop something on the floor and think “I should pick that up,” only to trip over it a moment later?

Have a fish jump out of the net and disappear until next week?

Testing the water: Put an empty tank with rack in the bedroom just to see what happens?

Is it better to ask for forgiveness than for permission when buying another tank?



April Bowl Show Winners



1st Place — John Buzzetti — *Nothobranchius rachovii* (Killi)

2nd Place — Richard Waizman — (Silver Plakat *Betta*)

3rd Place — John Buzzetti — (*Betta splendens*)



Tall Tales & Myths

The Dobhar Chu

by Dr. Glen Roberts

Irish folklore is littered with horrendous water creatures. One of the more frightening is the Dobhar Chu (pronounced do-war coo). The Dobhar Chu is thought to inhabit lakes of the British Isles and is Ireland's version of Nessie, although not as big. Dobhar Chu is only about 7 feet long and looks part dog and part otter. In fact, Dobhar Dhu is an ancient word meaning otter.

Commonly called the water hound or the hound of the deep, this creature is bloodthirsty and likes human flesh. Legend tells of there being two of these creatures in any one place. If one is killed, the partner will race to the surface and devour the killer! This creature is known for its fantastic speed, so out running an angry Dobhar Chu is unlikely.

More than just a myth, the Dobhar Chu is referred to as a cryptid. This puts it in the same category as Nessie and Bigfoot. Many people believe that have actually seen the hound of the deep. Sightings of the Dobhar Chu have been reported as recently as 2000. There even is a 16th century tombstone in Cornwall that depicts this creature as connected to the death of the woman buried there. She was washing her clothes in the lake when her husband heard her scream. When he arrived at the shore, she was dead and the Dobhar Chu was feasting on her body. Of course he killed the creature, but as it died it let out an ear-piercing



whistle that called its mate. Apparently, in this case, the man killed the second creature also.

Lesson learned here? Don't wash your clothes in the lake unless you're prepared to tackle the Dobhar Chu!



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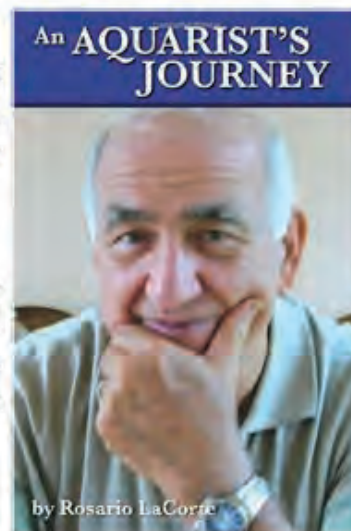
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Exotic Aquarium Fishes

Betta rubra

Holacanthus tricolor

Parosphromenus deissneri

Austroloheros Sp. "red ceibal."

Sphaerichthys selatanensis

New York Aquarium

Betta uberis

Betta balunga

Cardina cf. cantonensis Sp. Tiger

by Steven Hinshaw

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by Alexander A. Priest

by Wallace Deng



How **LOW** Can You Go?

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

A series by the Undergravel Reporter



Days after the new snailfish was filmed, scientists caught two other snailfish from species *Pseudoliparis belyaevi* in the trench at 26,318 feet. Researchers report that these fish are the first to have ever been collected from a depth greater than 8,000 meters — or 26,246 feet.

The species found near the ocean floor have adapted over eons to survive more than 1,000 meters deeper than the next known deep-sea fish, according to Prof. Alan Jamieson, the expedition's chief scientist and founder of the Minderoo-UWA Deep Sea Research Centre.

According to an article in the New York Post, “a fish has been captured by researchers swimming at never-before-recorded depths of over five miles below the ocean’s surface off the coast of Japan.”¹

The unknown species of snailfish (belonging to the genus *Pseudoliparis*) was caught on camera swimming 27,350 feet underwater by a deep ocean vessel in the Izu-Ogasawara trench, south-east of Japan.

Jamieson noted that, “One of the reasons [snailfish] are so successful is they don’t have swim bladders,” he continued. “Trying to maintain a gas cavity is very difficult at high pressure.” They do not have scales, but have a gelatinous layer around their bodies that Jamieson called a “physiologically inexpensive adaptation.”



Reference:

<https://nypost.com/2023/04/04/researchers-find-fish-swimming-5-miles-below-the-surface/?dicbo=v2-mJ0tX78>



Fin Fun



COUNTDOWN!

Match the scientific names with their common names for the “numbered” fish below:

Onespot betta	<i>Ginsburgellus novemlineatus</i>
Twospot rasbora	<i>Thalassoma hardwicke</i>
Threespot gourami	<i>Hyporthodus exsul</i>
Four-eyes	<i>Chaetodon punctatofasciatus</i>
Fiveband barb	<i>Trichopodus trichopterus</i>
Sixbar wrasse	<i>Rasbora elegans</i>
Sevenband butterflyfish	<i>Chaetodon octofasciatus</i>
Eight-striped butterflyfish	<i>Desmopuntius pentazona</i>
Nineline goby	<i>Betta unimaculata</i>
Tenspine grouper	<i>Anableps anableps</i>

Source: Fishbase.org

Solution to our last puzzle: **Tasty Treats**

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

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