

modern AQUARIUM



April 2022
volume XXIX
number 2

Greater City Aquarium Society - New York

長江水族館

專營各國熱帶觀賞魚和全套優質水族器材



131-08 40th Road, Flushing

Skyview Mall 天景豪苑旁

347.732.0373

monsteraquarium@hotmail.com



歡迎參觀 七天營業

Open 7 Days • 10am-8pm



LIKE AND FOLLOW US ON FACEBOOK

WWW.FACEBOOK.COM/MONSTERAQUARIUMINC

modern AQUARIUM

Series III Vol. XXIX, No. 2 April, 2022

ON THE COVER

Our cover this month celebrates the perennially popular freshwater angelfish, *Pterophyllum scalare*. There are many types, with many different color varieties, including Albino, Black, Gold, Silver, Marbled, Koi, etc. Even this writer, after many years without, has begun keeping them again! The photo is courtesy of Ron Webb.

GREATER CITY AQUARIUM SOCIETY

BOARD MEMBERS

President.....	Horst Gerber
Vice-President.....	Edward Vukich
Treasurer.....	Jules Birnbaum
Assistant Treasurer.....	Ron Wiesenfeld
Corresponding Secretary.....	Open
President Emeritus.....	Joseph Ferdenzi

MEMBERS AT LARGE

Pete D'Orio.....	Al Grusell
Jason Kerner.....	Dan Radebaugh
Marsha Radebaugh.....	Leonard Ramroop

COMMITTEE CHAIRS

Bowl Show.....	Joseph F. Gurrado
Breeder Award.....	Harry Faustmann
Early Arrivals.....	Al Grusell
Membership.....	Marsha Radebaugh
N.E.C. Delegate.....	Artie Mayer
Programs.....	Open
Social Media.....	Gilberto Soriano
Technical Coordinator.....	Jason Kerner

MODERN AQUARIUM

Editor in Chief.....	Dan Radebaugh
Copy Editors:	
Alexander A. Priest.....	Susan Priest
Donna Sosna Sica.....	Thomas Warns
Advertising Manager.....	Robert Kolsky

In This Issue

From the Editor.....	2
G.C.A.S. 2022 Program Schedule.....	3
President's Message.....	4
Our Generous Sponsors and Advertisers.....	5
Pictures From Our Last Meeting.....	6
Photos by Leonard Ramroop.....	6
Cartoon Caption Conest.....	7
Cartoon by Denver Lettman.....	7
Tonight's Speaker:.....	8
Rosario LaCorte: Images From A Lifetime of Fish Breeding.....	8
The Origin of Modern Aquarium, Series III.....	9
MA Classics.....	9
by Joseph Ferdenzi.....	9
<i>Girardinus metallicus</i>	11
The Black Chin Livebearer.....	11
by Dan Radebaugh.....	11
Algae Eating Cyprinids.....	13
From Thailand and Neighboring Areas.....	13
Exchange Article.....	13
by Neil Frank and Liisa Sarakont.....	13
What's On TV?.....	17
by Joseph Ferdenzi.....	17
How Much Do I Hate Planaria?.....	18
Exchange Article.....	18
by Karen Murray.....	18
Thoughts & Opinions on Feeding.....	19
Part 1.....	19
MA Classics.....	19
by Rosario LaCorte.....	19
G.C.A.S. Breeders' Award Entry Form.....	22
Fishy Friends' Photos.....	23
G.C.A.S. Member Discounts.....	24
Member Classifieds.....	25
Modern Aquarium Covers - 2001.....	26
MA Classics.....	26
The Undergravel Reporter.....	27
Joe Biden Is A Fossil!.....	27
Fin Fun (Puzzle Page).....	28
One Hundred Years!.....	28

From the Editor

by Dan Radebaugh

Well, it's been a long, slow road, but at last we seem to be seeing the light at the end of the Covid-19 tunnel. We shouldn't get too cocky just yet, but the statistics, at least here in the U.S., continue to be moving in a positive direction. It was very gratifying to see how many folks were here in person at last month's meeting, and we had a big auction! Hopefully we'll continue to crawl our way back to normal. The question is, how similar will normal be to what it was prior to the pandemic?

I think that having remote speakers at our meetings is likely going to continue. Now that we (meaning Jason) know how to do it, we have proved that we are able to have well-known speakers from practically anywhere in the world! I confess though, that it will also be great to once again have the actual biological units here with us.

2022 marks Greater City's 100th year of continuous operation! That means, among other things, that this club has been meeting and doing



fish club things longer than any of us current members have even been alive! Not too shabby, eh?

Those of you who are regular readers of **Modern Aquarium** will likely have noticed that as we've approached this 100 year milestone the magazine has been including more and more reminders of it's heritage—and that of our club. In this issue you'll see this manifested in several places, such as the collection of **Modern Aquarium** covers from 2001, the Fin Fun puzzle, Joe Ferdenzi's article, "The Origin of **Modern Aquarium**," on page 9, and tonight's Speaker Rosario LaCorte's article, "Thoughts and Opinions On Feeding" on page 19. I should note that this is part one of Rosario's article; part two will appear in next month's issue.

I'm delighted to mention that our Cartoon Caption Contest returns this month with a drawing by Denver Lettman to test your interpretive skills. Good luck!

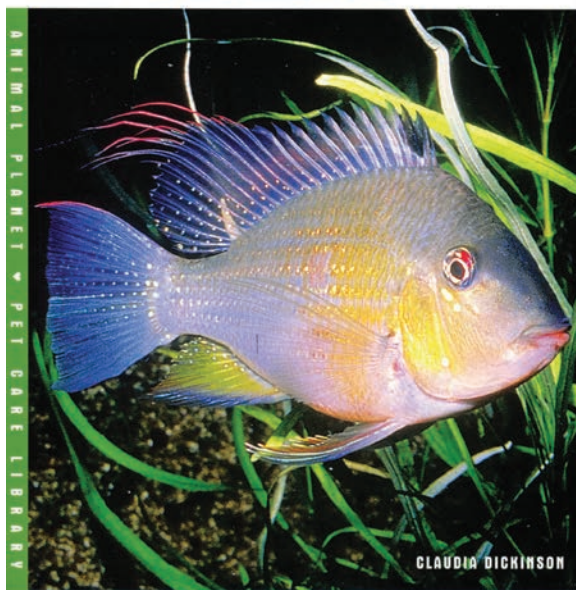
You'll find "Pictures From Our Last Meeting" on page 6. Our Facebook Fishy Friends' Photos are on page 23, the latest entry from The Undergravel Reporter is on page 27, and the issue ends as usual with our Fin Fun puzzle, this one appropriately entitled, "One Hundred Years."

We also have a couple of exchange articles. The first is "Algae Eating Cyprinids From Thailand and Neighboring Areas" by Neil Frank and Liisa Sarakontu. The second is "How Much Do I Hate Planaria?" by Karen Murray. I hope you enjoy them!

Please note that our new Breeders Award entry form is on page 22. You can easily print a copy by downloading it from our Website: https://0201.nccdn.net/1_2/000/000/0b2/0cb/gcas-bap-entry-form-2022.pdf



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

2022

March 2	Scott Dowd <i>Project Piaba</i>
April 6	Rosario LaCorte <i>Images From A Lifetime of Fish Breeding</i>
May 4	Warren Feuer <i>Shell Dwelling Cichlids</i>
June 1	Dr. Enea Parimbelli <i>Voyage in Lake Tanganyika</i>
July 6	Joseph Gurrado <i>Reef Keeping</i>
August 3	A Night at the Auction
September 7	TBA TBD
October 5	TBA TBD
November 2	TBA TBD
December 7	TBA TBD

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 2022 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

Nothing will satisfy me more than to bring you our April 2022 **Modern Aquarium** in a post-pandemic world. Unfortunately, Covid-19 risk is still with us, but the situation is getting better. As we reach the 3rd year mark of this pandemic our Board and proof-readers remain devoted to keeping up the high standards of our magazine.

I thought that by now the Covid-19 episode would be behind us and I wouldn't have another word to say about it. I write this message for a fish club magazine, not a health journal, and I don't want to write any more about Covid-19, but here we are, still talking about it and sharing tips to hopefully stay alive and healthy. Get vaccinated, mask up when you are unsure of others' vaccination status, and continue to practice hand hygiene! None of these tips are new, of course, but they remain our best defense against this virus. I suppose saying "Gesundheit" wouldn't do any harm either, but I haven't seen any statistics on that.

As most of you know, this year marks our 100-year anniversary, and I hope and trust that between the speaker presentations at our meetings and the information you find in this magazine, you will continue to benefit from the information our club strives to provide. There's a saying that "April showers bring May flowers." Let's trust in those flowers!

Reminder! Pandemic rules and regulations for meetings at the Queens Botanical Garden are dictated by the city. If in doubt about these rules, call them and ask! Or email our Editor, Dan Radebaugh, at gcas@earthlink.net.

Horst



Joe Ferdenzi

In view of Joe's years-long, immeasurable contributions to and support of the Greater City Aquarium Society, and to better reflect how the club actually functions, the Board of Directors has voted to confer upon him the title of President Emeritus. Congratulations, Joe!





GCAS Thanks You!

Our Generous Sponsors and Advertisers

The Greater City Aquarium Society extends our heartfelt thanks to the following manufacturers for their generous donations. Thanks also to our advertisers, whose contributions to our success as a Society are deeply appreciated. Please patronize our supporters.

Advanced Marine Aquatics

Al's Aquatic Services, Inc.

Aquarium Pharmaceuticals

Aquarium Technology Inc.

Aqueon

Brine Shrimp Direct

Carib Sea

Cobalt Aquatics

Coralife

Ecological Laboratories

Fishworld

Florida Aquatic Nurseries

Franklin Pet Center Inc

Fritz Aquatics

HBH Pet Products

High Quality Exotic Goldfish

Hydor USA

Jehmco

Jungle Bob Enterprises

Jungle Labs

Kent Marine

KHC Aquarium

Kissena Aquarium

Marineland

Microbe Lift

Modern Aquarium

Monster Aquarium, Inc.

Nature's Reef & Reptile

NorthFin Premium Fish Food

Ocean Nutrition America

Oceanic

Omega Sea

Pacific Aquarium, Inc.

Penn-Plax

Pets Warehouse

Pet Resources

Pisces Pro

Red Sea

Rena

Rolf C. Hagen

San Francisco Bay Brand

Seachem

Sera

Spectrum Brands

Your Fish Stuff.com

Zilla

Zoo Med Laboratories Inc.

Pictures From Our Last Meeting

Photos by Leonard Ramroop



Our members, along with Joe Ferdenzi (on screen), getting ready for the evening's events.



Dan Radebaugh and Jules Birnbaum gird themselves for the evening rush.



Harry Faustmann checks out the latest *Modern Aquarium*, with Joe Ferdenzi 'looking on' from the screen.



Jason Kerner and President Horst exchange pleasantries.



Our Speaker this evening, Scott Dowd, telling us about Project Piaba.



A close-up look at our speaker, with our facilitator Jason in the dark foreground.



Tom Keegan looks over the raffle items.



Auctioneer Ed Vukich and his helpers, along with tech wizard Jason.

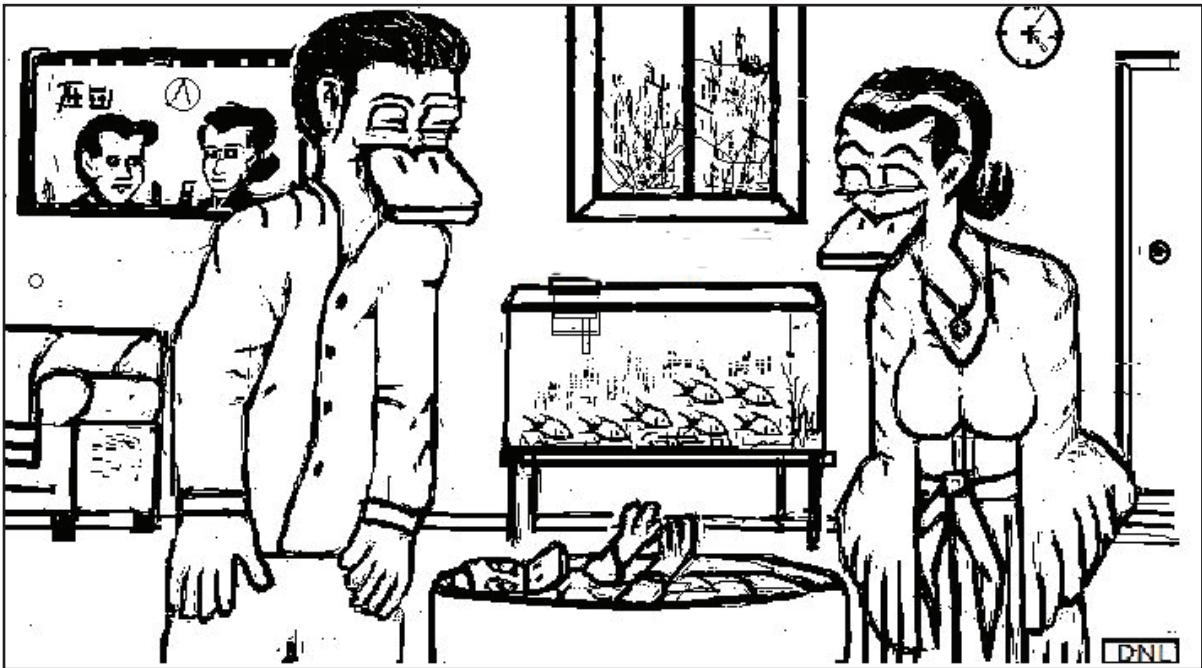


Members take a look at some of the auction items.



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 can 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:



Tonight's Speaker: April 6, 2022

Rosario LaCorte: Images From A Lifetime of Fish Breeding

Rosario LaCorte turned 93 this past March 16th, and he has spent 70 of those years in the aquarium hobby. His achievements are so many they cannot be encapsulated on one page. That is why in 2018 Greater City published his autobiographical book **An Aquarist's Journey** — a seminal work in the history of the American aquarium hobby. However, an example of the regard in which Rosario is held by others is very well expressed in the following passage written in 1971 by Dr. Bob Goldstein, himself a noted aquarist and author of several books on aquarium fishes, for the magazine **Advanced Aquarists**.

Rosario LaCorte – New Jersey

One of the great names in this hobby belongs to this man, a guy who was writing about breeding new and rare and difficult fishes while I was still learning one livebearer from another. And the pace of Rosario LaCorte's interest in breeding the new and rare has never slackened for a moment. He was breeding characins that I had never heard of. Rosario is the rare REAL aquarist. Not just a specialist in killies and cichlids (about both of which he has made numerous contributions), but a student and breeder of anything wet! ... And his fishes don't just sit there! They breed! Because he gives them the set-ups and the care and feeding and attention that it takes. But he gives them more than that too, obviously. Otherwise there wouldn't be just one Rosario LaCorte!

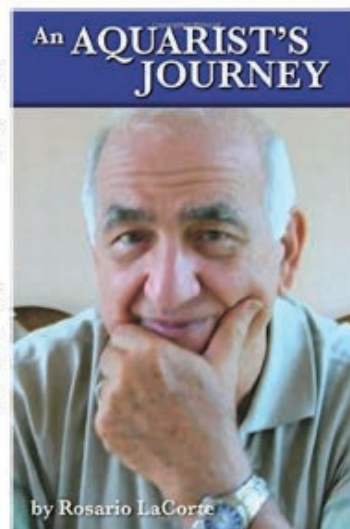


An Aquarist's Journey

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)



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

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

Reprinted from *Modern Aquarium* – Series III, Vol. 1, No. 1 January, 1994

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.



NorthFin

100% Premium Ingredients In Every Pellet

- **Filler Free**
- **By-Product Free**
- **Artificial Pigment Free**

 **MADE IN CANADA**

Girardinus metallicus

The Black Chin Livebearer

Story and Photos by Dan Radebaugh

Native to Costa Rica and Cuba, the “Metallic *Girardinus*” can be found in streams, ponds and ditches, where the water is commonly stagnant and often brackish. You may find this fish labelled as the black chin livebearer, metallic livebearer, metallic topminnow, metallic *Girardinus*, or *Girardinus metallicus*. A small species, males are about 2 cm and possess a gonopodium, while females are about 4 cm. Males also have a black ‘stripe’ which runs from the mouth along the underside of the fish into the gonopodium.

Commonly known as the ‘black chin livebearer’ and ‘metallic fish’ due to a dark line running from the chin across its shiny body, this spectacular-looking species is a great choice for community tanks. A well planted tank with some floating cover is ideal for this species. Water should be medium hard and alkaline or brackish, with temperature 72-84° F (22-27° C). Omnivores, their diet should include small frozen, live and dried foods with a high vegetable content.



While these are peaceful fish, they do appreciate brackish water conditions, so tankmates should be chosen with care. If keeping

them in hard freshwater, then hardy *Corydoras*, tetras and small rainbowfish are good choices. In a brackish setup *G. metallicus* can be kept with bumblebee gobies and other small species.

As with other livebearers, the males can be somewhat incessant in their pursuit of females, so in case you intend to keep the fish with their own kind only, a ratio of 1 male per every 3 females is suggested so as to provide some relief to the females. Areas of dense planting will also help.

Gestation takes around 24 days, and broods of between 15-30 fry can be expected. The adult fish will prey upon the young, so the best method of raising them is to remove the gravid females to a separate tank and allow her to give birth there, then returning her to the main aquarium. The use of breeding nets or traps is not recommended, as their small size is not suitable for raising fry. The fry are quite large and will accept brine shrimp nauplii or powdered flakes from birth. They should also be fed vegetable matter such as blanched spinach or spirulina. They grow very quickly if fed 2-3 times per day.

GIRARDINUS METALLICUS: VITAL STATS

Common Name: Black Chin Livebearer
Family: Poeciliidae
Temperature: 72- 84° F (22-25° C)
Water Hardness: pH 6 to 8, dH: Up to 20°
Maximum Size: 3½ to 4½ cm for adults.
Distribution: Cuba, Costa Rica
Reproduction: Livebearer
Temperament: Peaceful
Life Span: 3 to 5 years
Environment: Well oxygenated; can be brackish
Nutrition: omnivore—Variety of live, frozen, and dry food
Filtration: Slow to medium flowing water

I am provisionally keeping them in NYC tapwater, and so far they seem to be doing fine. You can easily create mild brackish water in the aquarium by adding 2 tablespoons of marine salt for each gallon of water. Use a hydrometer to keep track of the desired range and ensure a weekly 50% water change. This will reduce nitrogenous waste in the aquarium and contribute to their longevity.

A golden sheen that appears lightly metallic with silver diamond shapes spreads laterally across the body. There is a black spot on the mid-center of the dorsal fin. Their mouth, underside of the chin, chest, stomach and tail also feature black blotches that differ from one fish to the other.

Omnivores, black chin livebearers need both meaty foods and plant matter in their diet to stay healthy. The best way to care for their diet in an aquarium is to rotate their daily feed, providing variations, and making sure not to overfeed. The ideal feeding regime for these fish should be not more than twice daily.

In the wild they usually thrive on aquatic vegetation, algae, insect larvae, detritus, and diatoms, whereas in captivity they readily accept a diet of flake food, pellets, and occasional live and frozen food such as daphnia, bloodworms, and brine shrimp as treats.



Keystone Clash

September 23-25, 2022

www.keystoneclash.com



Jim
Cumming



Greg
Steeves



Thomas
Keegan



Joe
Gargas



All Species Fish Show With Over 30 Classes
Including Hybrids, Plants, & Photography

Bigger Vendor Room

Bigger Hospitality Suite

Sunday Auction

World Class Speakers

Aquascaping Competition

Give A Kid A Tank Event

Saltwater & Freshwater

Raffles

A weekend long fish show event co-hosted by the Cichlid
Club of York & the Aquarium Club of Lancaster County

www.keystoneclash.com

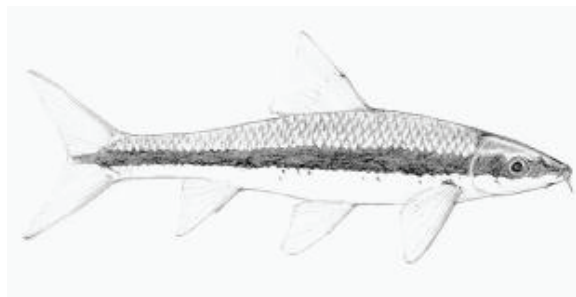
ALGAE EATING CYPRINIDS FROM THAILAND AND NEIGHBORING AREAS

by Neil Frank and Liisa Sarakontu

Photographs by Neil Frank

Illustrations by Liisa Sarakontu

This article talks about five fishes from Thailand and neighboring areas, including the elusive Siamese Algae Eater (*Crossocheilus siamensis*) which is the only known fish to effectively eat red beard/brush algae (*Audouinella*). The other four fishes are (1) a very similar fish which we call the false siamensis, (2) a more colorful relative—the Flying Fox (*Epalzeorhynchus kalopterus*), (3) another *Crossocheilus* species and (4) the Chinese algae eater (*Gyrinocheilus aymonieri*). To the casual observer, all these fish may look the same at first. Even some reputable aquarium texts have confused the real and false siamensis. A summary table is included at the end to compare the distinguishing features among these interesting fishes. Information is also presented on the availability of the Siamese Algae Eater in Europe and America and on ways to purchase this fish.



Siamese Algae Eater (*Crossocheilus siamensis* (Smith, 1931))

This slender algae eating barb is the only known fish that eats red algae. It comes from the flowing waters of Thailand and the Malay peninsula. First brought to Europe in 1962, it became popular in the 1970's when its ability to eat red algae was noticed. The fish is also known as Siamese Flying Fox, and Siamese Fox. Its previous scientific name was *Epalzeorhynchus siamensis*. To those interested in the fine, but admittedly boring details of taxonomy, the genus *Crossocheilus* differs from *Epalzeorhynchus* by rhinal lobes (nasal lobes).

Description: A slender, grayish-brown fish with a distinctive black horizontal stripe. Maximum length is 15 cm (6 inches), and might be obtained in two years if the conditions are optimal. Normally they grow slower and don't always reach that size in captivity. They can live over 10 years. All the fins are transparent or slightly milky without any yellow or reddish sheen. The black band goes from the nose to the fork of the tail and its edges are zig-zagged. When

stressed or fighting the black color fades significantly. Underparts are silvery white, and there is no light stripe over the black, but the whole upper body is brownish, and every scale has a dark edge, which make the top look reticular. Some dark scale edges might be seen under the black stripe. It has two pairs of thin, forward-pointing barbels, but they might be pressed against the cheeks when fish is swimming or resting. The long black stripe is also easy to see in young fishes, but the scale edge pattern and zig-zag edges are not clearly visible until the fish reaches the length of 5-7 cm (2-3 inches); the ones that are normally seen in European shops are about 3-5 cm (1/2 inch) long. Adult females are often slightly fatter than males; no other sexual differences are known.

Behavior: It is an active and fast swimmer, and thrives best in schools, but can also be kept alone or in pairs. A strong jumper, it should not be left unattended in small uncovered containers. Siamese Algae Eaters often chase one another, but they never get hurt in these fights. It doesn't bother any of its tankmates.

C. siamensis has a peculiar resting position: it doesn't lie flat on its belly but keeps its body propped up with its tail, pelvic and pectoral fins. Young fish sometimes rest on broad leaves, while adult specimens prefer resting on the bottom or on dense, low plants like *Cryptocorynes*. The swim bladder is not very developed, so the fish can't stay in midwater—it must be in constant motion or it sinks.

Needs: The Siamese Algae Eater is not very demanding. Suitable temperature is 24-26C (75-79F). They can tolerate pH from 5.5 to 8.0, but 6.5-7.0 is ideal. Hardness should be less than 20 dH. Water should be clean and oxygenated, because they come from bright and fast-flowing streams. They eat algae, including red algae and all kind of live and prepared foods. It is very rare that they harm plants in their tank if they are given enough green food. They also eat algae when they are mature, but seem to prefer flake food. Liisa's fish eat duckweed (*Lemna minor*) but have never touched any other plants. They haven't yet been bred in captivity, so all the specimens are caught from nature. It appears that the fish are seasonal and are not always available in the shops. Minimum tank size for a pair of adult Siamese Algae Eaters is 100 liters (25 gallons). The aquarium should be long and have lots of living plants.

Compatibility: As they are not aggressive, they can be kept in any community tank big enough. Their active behavior might stress some sensitive species

Reprinted with permission from *The Aquatic Gardener*, the Journal of the Aquatic Gardeners Association. Any person interested in the Aquatic Gardeners Association is invited to apply to AGA Membership, PO Box 51536, Denton TX 76206 USA.

like dwarf cichlids and prevent them from spawning. They should not be kept with red-tailed Sharks (*Epalzeorhynchus bicolor*) unless the aquarium is large and well planted, because that species is very aggressive towards all its relatives.

Availability in the Aquarium Trade: The Siamese Algae Eater, *Crossocheilus siamensis*, is quite common in Europe. In fact, it is one of the top ten fish sold in Finland. Although it became known to American hobbyists in the 1980's through the translation of European literature, most notably **The Optimum Aquarium**, the fish has been virtually absent from the American aquarium scene. This might be attributed to several factors. First, some English language books did not publish the correct picture of the true SAE. These include the English edition of the **Baensch Atlas**, Volume I (same as the first German edition of this volume) and the early editions of the **Axelrod Atlas**. In these books the illustrated fish is the false siamensis, *Garra taeniata* or another *Epalzeorhynchus* species. Secondly, the true SAE is thought to be less colorful than several of its relatives. In fact, in some countries of Asia (e.g. Taiwan), this fish is known as the flying fox; the fish we call false siamensis is known as the colorful flying fox.

We know about at least two suppliers of this fish in the U.S.—The Albany Aquarium, an aquarium store in Albany, CA, imports them directly from Southeast Asia. They have been willing to ship Overnight Federal Express directly to hobbyists. Contact: Albany Aquarium, 818 San Pablo Ave., Albany, CA 94706, (510) 525-1166.

Southern Tropical Fish, a tropical fish wholesaler in Lakeland, Florida is currently importing them from Bangkok. The fish first showed up on the wholesale listing as 'small flying fox.' After we discussed the differences among the related species with this firm, the identity crisis is no longer a problem. The true SAE are now regularly appearing in North Carolina and elsewhere in the Eastern U.S. Ask your local aquarium store to contact Southern Tropicals to see if they can acquire this red algae eating fish for your area.



False Siamese Algae Eater

False siamensis (*Epalzeorhynchus* sp. or *Garra taeniata*)

This algae eating barb strongly resembles the Siamese Algae Eater. It comes from the same region, and at least young specimens can school together.

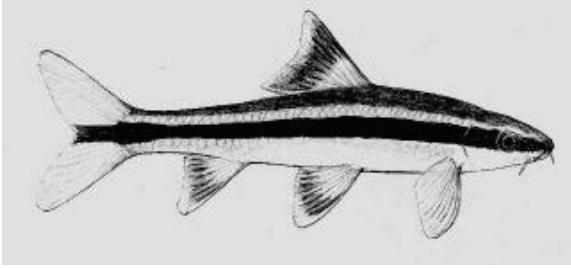
These fish are often mistaken for real Siamese Algae Eater. In Finland it is common to see some specimens among a tankful of Siamese Algae Eaters. Up until now it seems that the real Siamese Algae Eater has been a rarity in U.S., and the false siamensis is often sold as Siamese Algae Eater. Even more confusing is that many respected Aquarium books (e.g. **Baensch Atlas**, Volume 1, English edition) present this fish as the Siamese Algae Eater (*Crossocheilus siamensis*). This fish has also been sold as the Thailand Flying Fox. There is still some uncertainty regarding the true identity of this fish. Markku Varjo states that it is the Siamese Stone Lapping Fish (*Garra taeniata* Smith 1931), but other very knowledgeable aquarists including Heiko Bleher and Fumitoshi Mori believe it is some species of *Epalzeorhynchus*.

Description: At first sight this fish is just like the Siamese Algae Eater, but they are easy to tell apart when you know what to look for. The black horizontal band does not go to the fork of the tail but stops at the base of the tail, and its edges are rather smooth. When the fish is frightened the black stripe fades to light grey. All fins except pectoral are yellowish, and there are dark markings on the dorsal fin. The rays near the base of the dorsal fin are black and there is another dark band in the upper part of dorsal. There is a distinctive narrow light stripe over the black horizontal band, and the dorsal region is solid grayish brown without dark scale edges. The top area is also slightly darker than Siamese Algae Eater. Sometimes bright red or pink is seen around the mouth, but it might disappear if the fish is stressed. It has two pairs of barbels (like the Siamese Algae Eater). Maximum length is reported to be 15 cm (6 inches). No sexual differences are known, but the amount of red might depend on the sex of the fish. In the orient, these fish are called the colorful flying fox. Ironically, *Crossocheilus siamensis* is called "the one like flying fox." Behavior: Adult specimens are aggressive toward each other; otherwise like the Siamese Algae Eater.

Needs: False siamensis is more demanding on water quality than Siamese Algae Eater. It needs very clear and oxygenated water. Ideal temperature is 24-26 C (75-79F) and the pH shouldn't get much under 7. They eat some algae, but in nature they probably seek small animals from algae growths. In the aquarium they eat all kinds of live and artificial foods. They have not been bred in captivity. Minimum tank size for this fish is 80 liters (20 gallons).

Compatibility: Can be kept in any community tank. Adult specimens often get aggressive toward one another, so there shouldn't be more than one false siamensis in a tank. They might also harass related species and other small bottom dwellers, like loaches, if the tank is not big enough.

The Flying Fox is the most colorful of this fish group. For this reason it has gained popularity in the U.S. over *Crossocheilus siamensis* and false siamensis.



Flying Fox, *Epalzeorhynchus kalopterus* (Bleeker, 1850)

It comes from the flowing waters of Thailand, Sumatra and Borneo. In Finland Wholesalers sometimes deliver this species as Siamese Algae Eater. It is also known as Trunk Barb.

Description: Body and fin shape are similar to the two previous species. Thin specimens are often pictured in the aquarium literature. The overall color is warmer brown or even goldish, and the black horizontal stripe goes from nose to the fork of the tail, as on Siamese Algae Eater, but the part going through the tail fin is darker and broader. There is a narrow golden stripe over the black. Dorsal, anal and pelvic fins have indistinct dark bands with bright white tips. It has 2 pairs of barbels. Maximum length is reported to be 15 cm (6 inches). No sexual differences are known.

Behavior: Same as previous species. Adult specimens are territorial and aggressive towards their own kind.

Needs: Ideal pH is near 7, temperature 24-26C (75-79F). It eats all kinds of live, prepared and plant foods. It has not been bred in captivity. Minimum tank size 80 liters (20 gallons).

Compatibility: Flying Fox can be kept in a community tank, but they might chase other fish viciously from their territory. There shouldn't be more than one adult Flying Fox in a tank.



Crossocheilus oblongus
(Cuvier and Valenciennes, 1842)

This is a close relative to the Siamese Algae Eater, and it is possible that specimens of this fish are sometimes found in schools of Siamese Algae Eater or false *siamensis*.

Description: Body shape and color are basically the same as Siamese Algae Eater and false *siamensis*. All the fins are transparent and the black horizontal stripe does not extend to the tail fin. The stripe has smooth edges, and the back is solid, not reticulated like on Siamese Algae Eater. It has two pairs of barbels

like Flying Fox. Maximum length is 10 cm (4 inches).

Behavior, needs and compatibility: Probably same as the previous three species.



Chinese Algae Eater, *Gyrinocheilus aymonieri* (Tirant, 1883)

This Algae Eater belongs to family *Gyrinocheilidae*, although it resembles both loaches and algae eating barbs. Its English name isn't very accurate, because it comes from Northern India and Thailand, not China. It is also called the Indian Algae Eater. There are still some unclear points in the systematic classification of this genus, and it is possible that the species most often imported isn't *G. aymonieri* but *G. kaznakovi*. There are also two other species (*G. pustulosus* and *G. pennocki*).

Description: The Chinese Algae Eater is a bottom-dweller. The most prominent feature is a big suckermouth, which it uses for scraping algae and clinging to objects. There is a special opening on the upper part of the gill cover for the water intake so that the fish can breathe without using its mouth. This same feature is seen on suckermouth catfishes.

The fish is light brown and there is a dark grey or brown horizontal pattern on its side, which can be either a zig-zag edged solid stripe or a row of separate spots or anything between these two. Young specimens are more colorful. There are some dark patches at the back and small brown spots at the tail. All the other fins are transparent or slightly brownish. Maximum length is 27 cm (11 inches), but normally it doesn't exceed 15 cm (6 inches) in an aquarium. Females are larger and fuller, adult males might show spawning tubercles on the head.

Behavior: It moves along all the surfaces of the tank scraping green algae with its suckermouth. Older specimens prefer artificial foods and are rather aggressive.

Needs: Chinese Algae Eater is not very demanding on water conditions: pH may vary from 6.0 to 7.5 and the temperature from 22C (72F) to 28C (82F). Water should be well oxygenated, as it comes from streams. It eats all kinds of foods, but must get enough algae or plant food. It is reported that it will stop eating algae if the temperature drops below 69 degrees F (20 degrees C). It has not been bred in captivity. Minimum tank size 100 liters (25 gallons).

Compatibility: Young Chinese Algae Eaters

can be kept in community, but adult specimens can be aggressive toward other fish. They most often attack slow-swimming, flat-bodied fish and shouldn't be kept with them.

Photos:

C. oblongus photo from Encyclo-fish.com

Gyrinocheilus aymonieri photo from Liveaquaria .com

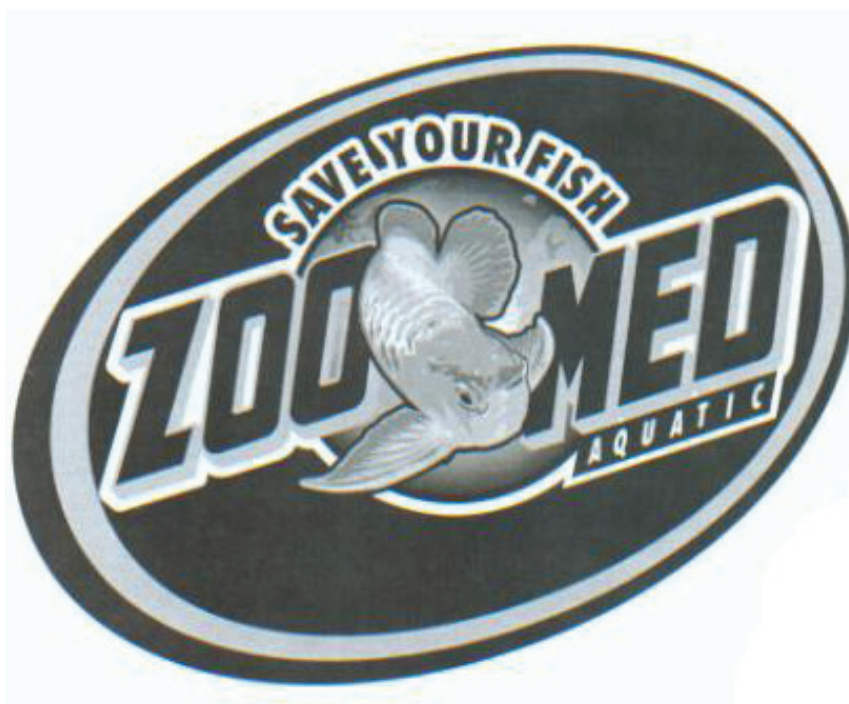
Distinguishing Features of Algae Eating Cyprinids

	<i>Crossocheilus siamensis</i>	"False siamensis"	<i>Epalzeorhynchus kalopterus</i>	<i>Crossocheilus oblongus</i>	<i>Gyrinocheilus aymonieri</i>
Horizontal stripe -edge:	zig-zag	smooth	smooth	smooth	uneven
-extend to tail:	yes	no	yes	no	
light stripe above	(sometimes)	yes	yes	?	
Dorsal region:	reticulated (black edged scales)	solid greyish brown			
Fins - dorsal:	transparent	dark lower rays & yellowish	dark bands & white tips	transparent	transparent
- anal:		yellowish			
- pelvic:					
Mouth:		small, nonclinging suckermouth (maybe with red/pink)			clinging suckermouth
Barbels:	2 pairs	2 pairs	2 pairs	2 pairs	none

1/2005: Added correction for number of barbels (2 pairs for SAE)—EO. Also note that the row starting with light stripe above reflects the correct data, which was misprinted in TAG.

References:

Axelrod, H. 1989: Atlas of Tropical Freshwater Aquarium Fishes. TFH, NJ. Mills, D. et al 1988: Tropical Aquarium Fishes. Tetra Press, NJ. Petrovicky, I. 1988: Aquarium Fish of the World. Arch Cape Press, New York. Riehl, R. and Baensch, H.A. 1989: Aquarium Atlas (Volume 1), MERGUS, Germany. Smith, H.M. 1945: The Freshwater Fishes of Siam, or Thailand, Bulletin 188. Smithsonian Institute, Washington D.C. Varjo, M. 1989: Akvaariomailma. - WSOY. Porvoo. Varjo, M. 1983: Levabarbi vai mika? Akvaariolehti 3/83:16-19.



What's On TV?

by Joseph Ferdenzi

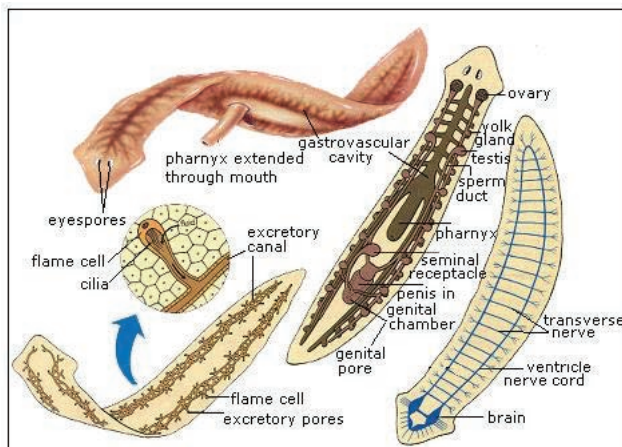


Here is a screen shot from the opening 5 minutes of Episode 5 (Season 4) of the Amazon Prime tv series **The Marvelous Mrs. Maisel** which aired just recently. The aquarium and the decorations were provided by me. The tank, the light, all the decorations (except for the plastic plant) and other equipment are from my collection of vintage aquarium items from the 1950s and 1960s. The Mrs. Maisel character is pointing her finger at her aquarium.



How Much Do I Hate Planaria?

by Karen Murray



Planaria are a flatworm that can quickly multiply and can be dangerous to some aquarium inhabitants. Planaria are weird and ugly in my opinion. Ugly! They remind me of leeches! Ugh! I am even having a hard time writing this article!

Why do I hate these mini-monsters? For one thing, it is a bad idea to crush planaria that you find in your aquarium. Like the B movie monsters on TV, each piece will grow into a new worm! They are asexual, so it only takes one to start a population. Aaaahh! They release a slime toxin that can kill your shrimplets. They will eat snails and snail eggs, too. If the slime touches the belly of your shrimp, or if planaria crawl under the exoskeleton, it stuns your shrimp for the planaria to get in and eat it. Eradicating planaria from your aquarium can be a difficult task. But don't worry, here are some ideas on how to -- if not eradicate them -- at least control them.

Planaria are small, pointy-headed flat white worms measuring around 0.1 to 0.6 inches, so they are easy to miss. They can change shape by contracting or stretching out. You may often see them after you have disturbed some soil. For me, they seem to hang out in my floating plants as well. When they feed, they slither their way to the top of the tank, along the glass, to get at the floating bits. They are NOT pretty.

You can get planaria from plants, snails, or fish that are introduced to your tank. You may have a population from overfeeding. In my case I had lots of substrate dwelling fry I was trying to feed.

How to kill/remove them:

1. Fenbendazole. Follow package instructions, but basically you dose twice in 48 hours. However, be aware that you will most likely kill your snails. If you have a lot, do a big water change and a heavy substrate vacuum so your tank does not foul. I use this for hydra in my fry tanks. It is difficult to find now.

2. Catch them. If you don't want to use chemicals, pierce a small container using a needle. You may think the holes are too small, but they can (and will) squeeze in. Fill it with water and maybe a small rock, and place it in the aquarium with the holes down toward the substrate. Leave it there for a few hours and then discard the worms outside—not down the sink or toilet (I hit them with a drop of clove oil first). You will have to do this regularly to control the population. This, along with cutting back on feeding, will help to control the population greatly. Remember, it only takes one to keep them going, so it will be an ongoing task. See my video on the Kwas Facebook Group (search 'planaria').

3. No Planaria: Non-toxic to shrimp, but is to snails. It is purportedly all natural, but as with anything, use with caution. I've read that some people can introduce snails even a month after treatment.

4. Fish that eat them. Apparently many fish will eat them, including angelfish, gambusia, darters, redbelly dace, sand shiners, gouramis, guppies, goldfish, common blowfish, mollies, tiger barbs, bettas, *Pelvicachromis pulcher*, and paradise fish.



THOUGHTS & OPINIONS ON FEEDING

Part One — ROSARIO S. LACORTE

So often we, as guest speakers, present programs outlining reproductive behavior in certain groups of fish, or perhaps a fantastic collecting trip to some exotic land, or just an assortment of beautiful fish photos.

More often than not, feeding and the importance of a sound nutritional program is often overlooked or just touched upon. In all fairness to the guest speaker, an hour or so hardly constitutes sufficient time to touch all the bases.

Frequently in my slide programs I have projected some instruments to facilitate the preparation of foods which would enhance the nutritional requirements of our fish. The following outline contains some of the procedures I have used with excellent results and some things to look for.

Newly hatched brine shrimp has been a staple item; and where would we be today without this important first food for newly swimming fry? It is doubtful if our hobby would have advanced to the point it has if it were not for the availability of Artemia cysts. Those aquarists who had live daphnia available most of the year could rear thousands of fish over a period of time, but not all were that fortunate. Therefore, Artemia opened many avenues of success to the aquarist who lived in very remote and barren areas for live food collecting.

There is a down side of feeding Artemia and I have touched on this subject in previous articles with some of the popular aquarium monthlies. Let me say at this junction that the following is purely speculative and is the result of my personal observation. A scientific study with controls would be the most accurate method of arriving at some type of conclusion. Most of the negative results, concerning Artemia have been with cyprinodonts.

How often does the breeder collect eggs and allow egg development to progress in plastic trays or shoe boxes? As the fry hatch they are either removed and placed in another tray or, if the hatch is almost complete, food is applied to the tray housing the fry.

Certainly we sometimes procrastinate and often find the fry dead because of the effects of overfeeding brine shrimp and the resulting

high level of toxic ammonia. Oftentimes, the killie breeder maintains a particular species which is not prolific and finds himself in the position of not wanting to devote a whole aquarium to 6 - 10 fry. He then devotes the few fry to a plastic tray, more often than not lacking filtration, that is allowed to balance itself. It is therefore wise to place in this container a sprig or two of Java moss to help absorb the excessive nitrates and nitrites which will accelerate due to confined feeding. Some small snails will aid in the consuming of excessive brine shrimp. It is a good practice to maintain a separate reservoir of water, preferably over a bed of peat moss, to add organics to water, which is a great benefit to growing fry. Weekly water changes will assist in development and acceleration of growth.

Since Java moss is a plant whose light intensity needs are very minimal, you can see that allowing the Java moss to attain large growth, where it is impossible for both juvenile or adult killies to penetrate the central areas, is bad. It then can become a trap for any excessive shrimp which may die toward the center of the Java moss. After a few hours the shrimp will die and decomposition is rapid with the eventuality of high levels of excessive ammonia. The pH can drop to a range of 3 to 3.5 with disastrous results.

Since Artemia is such a luxury and a rather easy item to have available all year round, the aquarist may take the easy path and maintain growing fry almost to the stage of adulthood. I have observed stomach disorders such as bloat due to heavy feedings of brine shrimp-especially if the water is not changed on a weekly basis.

My theory with this problem can be compared to our own nutritional requirements. As an example, we know that high ingestion of sodium will, over a period of years, result in dangerous hypertension for a large percentage of our population. There may be a relationship to a stressful environment and this stress in the case of our fish population can be the result of poor water quality. I've always felt that because of our heavy feedings of Artemia we can assume that our fish also may ingest an over abundance of sodium. We hatch Artemia in a brine solution and, living in this environment, shrimp in their physical makeup have a great deal of sodium. When they are rinsed in fresh water, you merely rinse the salt water surrounding them but not that within their bodies. Those of you who have been instructed to partake of a low sodium diet know that shellfish (clams, oysters, etc.) and shrimps are considered foods rich in sodium and therefore it is wise not to consume them. Marine fish can be eaten, since they have the

MA Classics

Reprinted from *Modern Aquarium* - Series III, Vol. II, No. 3 March, 1995

ability to filter excessive sodium from their physical structure. In the human cell sodium and potassium are two chemicals that are in equal balance to maintain healthy cell structure. When sodium increases to high levels the pressure of the sodium will push potassium out of the center of the cell by means of osmosis. In the process sodium, which is now inside the cell, will attract water, hence water retention.

You may ask why don't my fish swell with stomach disorders when using salt in the curing of velvet or in the routine addition of some salt to the tanks as many killie breeders do. Again, fish can filter out sodium when they drink water, but not when foods rich in sodium are ingested. Adult frozen brine shrimp is a prime example of a food source rich in sodium like marine shrimps and shellfish. These foods, fed as a main diet, may be a problem for some species of fish whose tolerance for sodium may be low. Have you noticed that there are several types of frozen adult brine shrimp on the market? This author has observed that some of these geographical races are collected in some waters with extremely high levels of sodium. A number of those Artemia which are collected in these hostile waters are more often than not rejected by many species of fish. My comments are not designed to condemn Artemia, but to make recommendations to help avoid some of the problems that just may occur with heavy daily feedings of this food.

Since we are on the subject of Artemia, I would like to relate an experience which happened to me many years ago. One evening I had an over abundance of newly hatched shrimp and rather than throw it away I decided to place the excess shrimp in a 3 gallon plastic pail for possible rearing to adulthood. Air was used via airstone and food in the form of active yeast was the food of choice for rearing to adulthood. After a period of time the shrimp were neglected and for some reason I placed the pail outdoors in front of my fish house. My fish house was a 3-car garage and the front had an overhang which prevented rainwater from flooding and overflowing the bucket.

The pail was completely overlooked and subjected to extreme weather conditions such as freezing during the cold winter months. Spring arrived, and one warm day while unlocking the entrance door to my fish house, out of the corner of my eye I noticed some movement at the surface of the pail. The surface had floating debris which had been blown in during the windy days of fall and winter. Having completely forgotten about its ingredients of the previous year, I dipped some of the water out with a clear

cup and was pleasantly surprised to see brilliantly colored adult Artemia. Resting cysts survived the winter and hatched with the spring thaw and then reached adulthood feeding on the organic material which was blown into the pail (leaves, twigs, bits of paper, etc.) I then decided to convert one of my several outdoor refrigeration liners (used to rear daphnia or fish) into a brine solution for the culture of Artemia. An airline was connected from the main pump line and extended to this receptacle to maintain some gentle aeration.

The food of choice was yeast and the culture was then inoculated with Artemia. These grew nicely, requiring approximately 3 weeks to reach adulthood. Eventually, I overlooked this culture as the summer daphnia season was upon us. I was able to collect a large amount of daphnia and it was a much easier food to feed in large quantities, whereas Artemia is limited and is only available for special fish.

Again fall arrived and again all sorts of organics were blown into the saltwater receptacle, causing the water to appear dark brown, much like a peat-filtered water. The liner was exposed to full sun for several hours a day and again in late March as it began to warm I noticed the water was now deep green. It was a magnificent bloom of algae and with this I remembered the past year and the pail. I began to keep an eye out for any Artemia hatchings and finally when the water temperature had reached 45 degrees (approximately), I noticed quite a number had hatched but had very restricted movement due to the low temperature. With the daily increase in temperature the Artemia began to accelerate movement and in a matter of two weeks they reached adulthood. Green water is the most natural food for them to feed on and make them an excellent choice as a pigmentor. You may want to create your own salt water container for the purpose of rearing Artemia. Remember, a great deal of sunlight is very desirable and cysts from the Great Salt Lake are the Artemia you want to use to culture.

In my own hatchery I feed Artemia twice a day and continue rearing the majority of my collection to adulthood. Of course, adult brine shrimp are primarily relegated to characins, which may reach 2-3 inches. It is not fed to discus, large cichlids, or fish such as Blue Gularis for example. When fry reach approximately 1/4 inch in length I can then feed chopped tubifex to accelerate growth.

The tool of choice to use to chop tubifex to desired lengths is a vegetable cutter, which consists of nine stainless steel wheels which are 1 1/4" in diameter and 3/16" apart. It is

mounted on an axle and comes with a handle. This unit can be rolled over the worms on a pine board and, going in different directions, you will see that you can reduce the worms to quite small pieces that can be fed to your growing fry. Remember to place the worms in a brine shrimp net to rinse the blood from them.

The idea is to give your growing fry as much variety as possible to accelerate growth and build a good strong fish. You cannot hope to raise fry on a constant diet of newly hatched brine shrimp. Much nutritional richness is lost in the hatching process itself. If Artemia could feed on green water for a few days, an increase in nutritional values would certainly result.

In order to get full production from killies it is beneficial to feed different types of worms for solid egg production. Tubifex is readily available and I realize these worms have always been controversial because of the polluted environment they live in. Care should be used prior to their feeding. Several washings a day will reach that point. If you are one of those

aquarists who only feeds this food you will produce large fish with poor color and finnage; at least that's been my observation.

Artemia fed wisely can enhance coloration in fish and it is one of the advantages of feeding at the fry stage. It can fix color at this stage of development.

Daphnia is also an excellent food and in particular Daphnia collected during the summer months is especially rich in nutrients due to their feeding primarily on algae which are a rich source of carotene. During the summer months because of the abundance of Daphnia to feed, our best growth occurred then and, as an added bonus, it also produced intense coloration in the fish. In one particular pond I was able to collect huge amounts of rotifers which were part of the plankton bloom. These were strained from the Daphnia and it was my experience to observe that there was no food that accelerated growth in fry as did the plankton. Even the rotifers were rich in color much like that of Artemia.



Add the final notch to your belt!



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! ❤️

caresforfish.org





GCAS Breeder's Award Entry Form



Name of Breeder _____

Fish Name (Latin) _____

Common Name (if any) _____

Date Spawned _____

Is Fish in CARES Program? _____

Date Free Swimming _____

Date Presented at Meeting _____

Photo? _____

Video? _____

At Least 6 60-Day Fry in Auction? _____

BAP Chair Signature _____

Program Use Only

Points for species + CARES = Total Points

Certificate # : _____

This form is available on website: https://0201.nccdn.net/1_2/000/000/0b2/0cb/gcas-bap-entry-form-2022.pdf

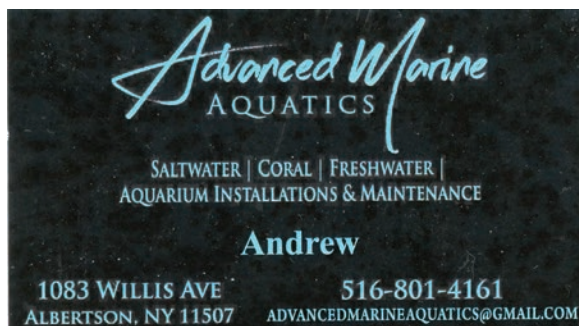
Fishy Friends' Photos

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!



GCAS Member Discounts at Local Fish Shops



10% Discount on everything.



20% Discount on fish. 15% on all else.



10% Discount on everything.



10% Discount on everything.



10% Discount on everything.



10% Discount on fish.



10% Discount on everything.



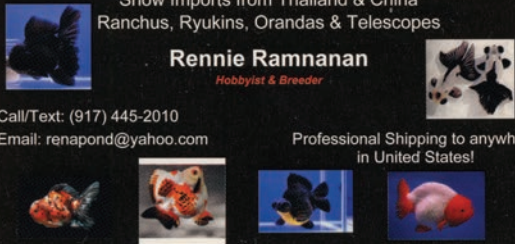
10% Discount on everything except 'on sale' items.

High Quality Exotic Goldfish
 Show Imports from Thailand & China
 Ranchus, Ryukins, Orandas & Telescopes

Rennie Ramnanan
Hobbyist & Breeder

Call/Text: (917) 445-2010
 Email: renapond@yahoo.com

Professional Shipping to anywhere
 in United States!



10% Discount on everything.



FISHWORLD
 USA
QUALITY AND SERVICE

152-69 10TH AVENUE
 WHITESTONE, NY 11357
 TEL: 718 902-6117
 WWW.FISHWORLD1.COM

STORE HOURS
 MON - FRI 11AM - 8PM
 SATURDAY 10AM - 7PM
 SUNDAY 10AM - 6PM



10% Discount on everything.

917-300-2293

124-11 Jamaica Ave
 Richmond Hill, NY 11418

naturesreefandreptile.com

Mon-Sun
 10 am - 8 pm

natureeefandreprs
 nature_reef_reptile



10% Discount on everything.

JUNGLE BOB ENTERPRISES, INC.

JUNGLE-BOB Reptiles
JUNGLE-BOB Aquatics

4130 Sunrise Hwy
 Oakdale, NY 11769
 ph: 631-319-6592
 www.JungleBobAquatics.com

Manufacturer of Quality Reptile & Aquarium Supplies



15% Discount on everything in store, or online at:
<http://www.junglebobaquatics.com> Use coupon code gcas15.

AL'S AQUATIC SERVICES INC
 ALSAQUATICSERVICES@OUTLOOK.COM

AL TURRISI
 516.633.8806
 CONTRACTOR
 POND DESIGN & INSTALLATION

SALT & FRESH WATER AQUARIUM SYSTEMS
 REEF TANK SYSTEMS




Member Classifieds

FOR SALE:

Eheim Cannister Filters -- Used but still in good shape: 2213, 2250
 Email Dan R (danrad545@earthlink.net)

Aquarium Rocks -- Photos available. Contact CaseySoloff@gmail.com

Modern Aquarium Covers

2001

modern
AQUARIUM



JANUARY 2001
volume VIII
number 1

modern
AQUARIUM



FEBRUARY 2001
volume VIII
number 2

modern
AQUARIUM



MARCH 2001
volume VIII
number 3

modern
AQUARIUM



APRIL 2001
volume VIII
number 4

modern
AQUARIUM



MAY 2001
volume VIII
number 5

modern
AQUARIUM



JUNE 2001
volume VIII
number 6

modern
AQUARIUM



SEPTEMBER 2001
volume VIII
number 7

modern
AQUARIUM



OCTOBER 2001
volume VIII
number 8

modern
AQUARIUM



NOVEMBER 2001
volume VIII
number 9

modern
AQUARIUM



DECEMBER 2001
volume VIII
number 10

January 2001	Natural-looking Aquarium
February 2001	<i>Sphaerichthys osphromenoides</i>
March 2001	<i>Julidochromis ornatus</i>
April 2001	<i>Anubias barteri</i> , <i>Anubias nana</i>
May 2001	<i>Aphyosemion australe</i>
June 2001	<i>Pseudogastromyzon myersi</i>
September 2001	<i>Aphyosemion bivittatum</i>
October 2001	<i>Betta enisae</i>
November 2001	Tridacna Clam
December 2001	<i>Helostoma temminckii</i>

by Joseph Ferdenzi
by Alexander A. Priest
by Joseph Ferdenzi
by Joseph Ferdenzi
by Joseph Ferdenzi
by Alexander A. Priest
by William T. Innes
by Alexander A. Priest
by Bernard Harrigan
by Alexander A. Priest



JOE BIDEN IS A FOSSIL!

A series by the Undergravel Reporter

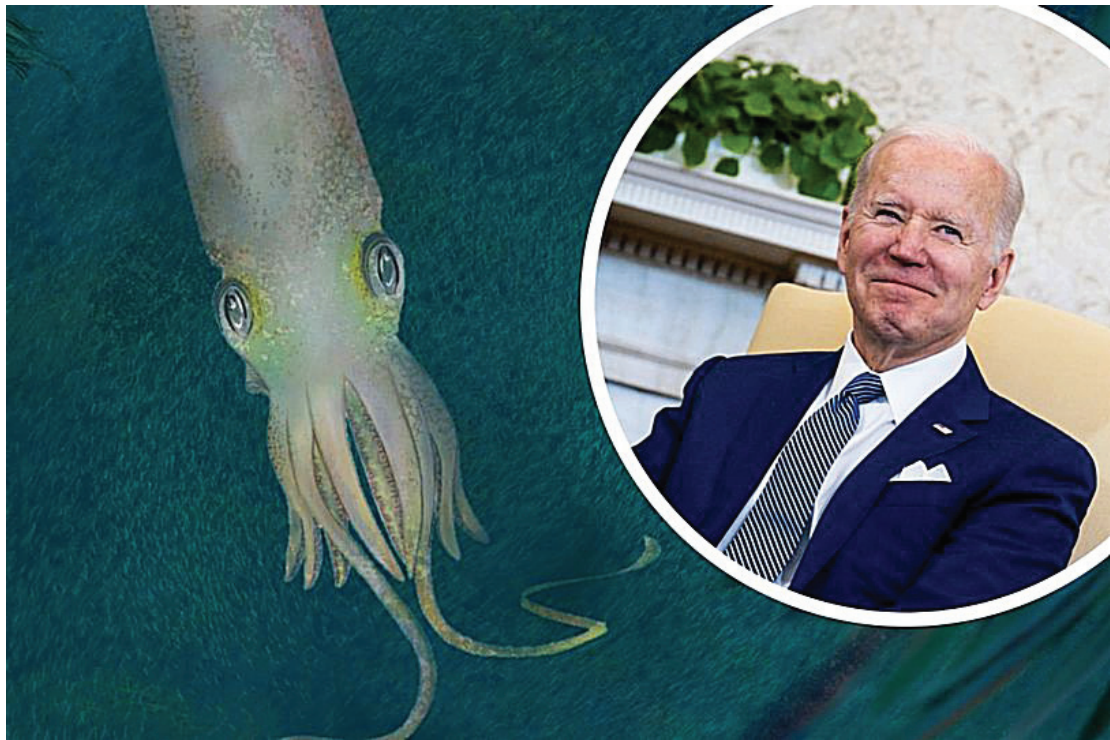
In spite of popular demand to the contrary, this humor and information column continues. As usual, it does NOT necessarily represent the opinions of the Editor, or of the Greater City Aquarium Society.

A team of paleontologists has named a newly discovered fossilized vampire squid after US President Joe Biden.

Modern vampire squids are not squids, but close relatives to the octopus. They have eight arms and two stringy filaments. The *Syllipsimopodi bideni* drifted across oceans nearly 328m years ago. It is the oldest known ancestor of vampyropods, a group that includes vampire squids and octopuses.

Christopher Whalen, a paleontologist, and Neil Landman, a curator emeritus at the American Museum of Natural History, decided to name the squid after Biden as (they claim) they were “encouraged by his plans to address climate change and to fund scientific research.”

This is not the first species to be



Artistic impression issued by the American Museum of Natural History of *Syllipsimopodi* around 330 million years ago. (Inset, US President Joe Biden) Courtesy of walesonline.co.uk

The *Syllipsimopodi bideni*, an “incredibly rare” fossil, was first dug up in Montana and then donated to the Royal Museum in Canada in 1988. The fossil’s first name translates roughly to “prehensile foot.” It has 10 arms and is the oldest known cephalopod to have suckers on each of its arms.

named after a president. Nine species were named after Barack Obama, and a moth and a blind worm-like amphibian that buries its head in the sand were named after Donald Trump.



Reference:¹ <https://www.theguardian.com/science/2022/mar/09/joe-biden-fossil-name-vampire-squid>

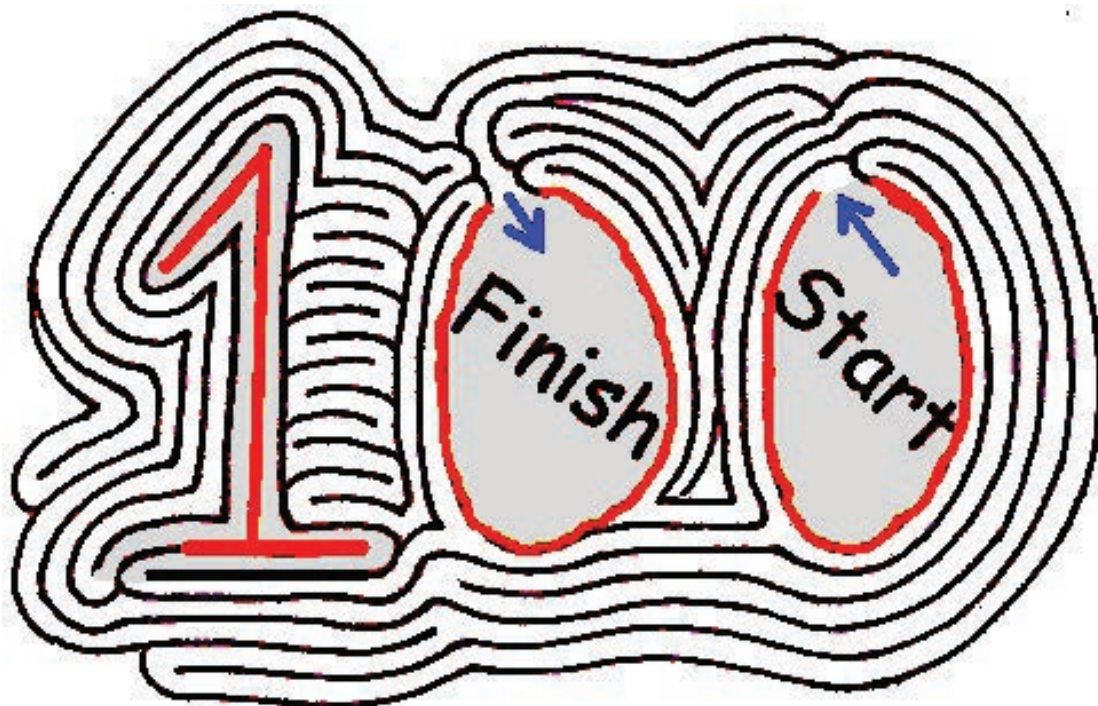


Fin Fun



One Hundred Years!

To commemorate Greater City's 100 years of continuous service to the aquarium hobby, see if you can solve the maze below.



Solution to our last puzzle:



ANCHOR	GURGLE
BLOAT	JACQUES
BRUCE	MARLIN
BUBBLES	NEMO
CHUM	NIGEL
CORAL	PEACH
CRUSH	PEARL
DARLA	SHELDON
DORY	SQUIRT
GILL	TAD

.	.	.	N	I	G	E	L	.	.	.	.	.	A	G	.
P	B	L	O	A	T	.	.	J	.	C	S	.	N	U	.
E	.	D	O	R	Y	.	T	.	A	.	O	Q	.	C	R
A	.	.	S	.	.	A	.	C	.	R	U	.	H	G	R
C	.	.	H	.	.	D	.	Q	.	A	I	.	O	L	U
H	.	.	N	E	.	.	.	U	.	L	R	.	R	E	C
.	.	.	E	L	G	I	L	L	E	.	T	.	.	E	L
.	.	.	M	D	.	.	.	S	.	C	R	U	S	H	.
.	.	.	O	O	C	H	U	M	.	.	.	.	.	.	S
.	.	.	N	.	.	.	.	.	.	M	A	R	L	I	N
.	.	.	D	A	R	L	A	.	.	.	.	.	P	E	A
.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.



MODERN AQUARIUM

Tel: 917-231-5956

1 Comac Loop, Unit 8
Ronkonkoma, NY 11779

www.ModernAquarium.com



SHOP NOW
AND TAKE

20% OFF

ON YOUR FIRST ORDER
OF PLANTS, DRIFTWOOD,
ROCKS AND BOTANICALS.

COUPON CODE

AQ20M



LIVE AQUARIUM PLANTS

- BEAUTIFUL LIVE AQUARIUM PLANTS DELIVERED TO YOUR DOOR
- HAND PICKED AND INSPECTED
- HEALTHY ARRIVAL GUARANTEE



DRIFTWOOD

- SHOW QUALITY DRIFTWOOD FOR YOUR TANK
- TIGER WOOD
- SPIDER WOOD
- RAINFOREST WOOD
- DRAGON WOOD
- PAPUA WOOD
- MANZANITA WOOD



AQUASCAPING ROCK

- EXOTIC AND UNIQUE ROCKS FOR YOUR HARDSCAPE
- JAPANESE OHKO DRAGON ROCK
- BLUE SEIRYU ROCK
- RED PAGODA ROCK
- BLUE PETRIFIED WOOD
- RIVER ROCK
- EXOTIC GREEN ROCK



BOTANICALS

- RECREATE NATURAL BIOTOPES WITH BOTANICALS
- CATAPA GUAVA, JACKFRUIT LEAVES
- DREGEA, STERCULIA, CARINIANA PODS
- BIRCH, ALDER AND INDIAN CONES
- CURLS AND STEMS
- BARK



WE ALSO OFFER

CO2 EQUIPMENT • PLANT FERTILIZERS • FILTRATION • WATER CARE • AQUARIUM
EQUIPMENT • FISH MEDICINE • FISH FOOD • ALGAE-EATING SNAILS • AQUARIUMS
3D AQUARIUM BACKGROUNDS • POND PLANTS • LIGHTING

www.ModernAquarium.com



**100th
Anniversary!
1922-2022**