

modern AQUARIUM



July 2017
volume XXIV
number 5

Greater City Aquarium Society - New York

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Series III Vol. XXIV, No. 5 July, 2017

ON THE COVER

When I first began keeping fish some (redacted) number of years ago, the second species I kept (and third and fourth) was a corydoras catfish, specifically *C. julii*. There's just something really appealing about these little fish. This month's cover photo is *Corydoras knaacki*, yet another of a seemingly endless stream of newly imported and very welcome little catfish species.

Photo by Ruben Lugo

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From the Editor

by Dan Radebaugh

As I've mentioned from time to time in this column, a long-term project which began at the end of 2011 has been to put all the issues of **Modern Aquarium** Series III, from its beginning over twenty years ago, online. We finally accomplished this last year, and the entire history of this incarnation of **MA** is now available on Issuu.com. If you look on our web site, Greatercity.org, and click on **Modern Aquarium**, you will see the links.

Originally intended as an archive for our members, having it on the Web has also made it available for anyone else who'd like to look at it, virtually (sic) anywhere in the world. As it turns out, more folks than I would have thought actually do! Issuu.com of course hosts many other publications, and types of publications, besides ours, and provides statistics of various sorts, which many publications need and use for marketing purposes. While we don't really use this data, it does tell us a few things of interest.

So below are our 'reads' for the past five and a half years, counted each time a user opened a publication for more than 2 seconds:

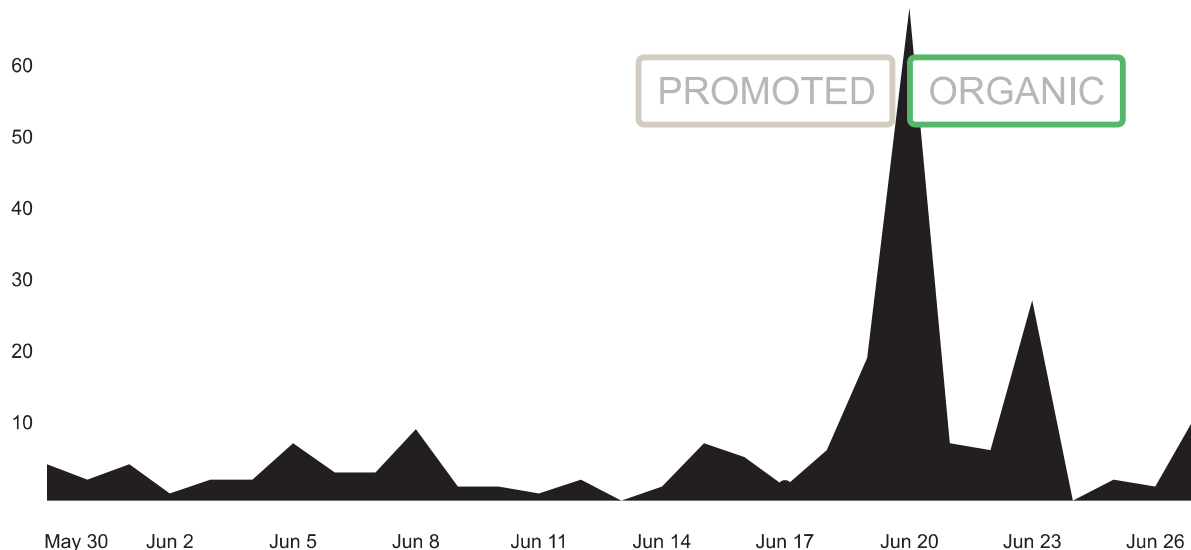
Impressions:	416,011
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Likes:	97
Shares:	10
Link-outs	0

If you don't know what any of this means, don't feel alone; I barely do either. Still, it does seem to



me to represent more interest than I would have expected for a small publication from an aquarium club. Average time spent on a page varies by issue, but seems consistent at around ten to eleven minutes, so people seem to be reading the content. I must admit though, to being puzzled by the activity timeline chart below. I wonder why the surge of activity from around the 17th to the 20th of this past June?

As I've noted before, we don't post our issues online until a year has elapsed from the original publication date (to preserve our benefits of membership). So why, if I posted this online in early June, is there so much more activity two weeks later? Oh, well! Yet another mystery. I guess I'll have to look at these statistics more frequently!





GCAS Programs

2017

It is our great fortune to have another admirable cast of speakers who have so graciously accepted our invitation to join us throughout the coming season, bringing us their extensive knowledge and experiences. You certainly won't wish to miss a moment of our prominent guests, not to mention the friends, fish, warmth, and camaraderie that accompany each meeting.

March 1	Joseph Ferdenzi <i>Killifish Demystified</i>
April 5	Michael Marcotrigiano <i>Breeding Show Guppies</i>
May 3	Michael Lucas <i>Butterflies in the Water: Discovering Hydrophlox Shiners</i>
June 7	Joseph Graffagnino <i>My New Fishroom</i>
July 5	TBA <i>TBA</i>
August 2	A Night at the Auction
September 6	Emily Voigt <i>The Dragon Behind The Glass</i>
October 4	James Perrenod <i>Discus</i>
November 1	Karen Pattist <i>Koi Appreciation – Kohaku</i>
December 6	Holiday Party!

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The Greater City Aquarium Society meets every month, except January and February. Members receive notice of meetings in the mail. For more information, contact: Dan Radebaugh (718) 458-8437 or email gcas@earthlink.net. Find out more, see previous issues, or leave us a message at our Internet Home Page: <http://www.greatercity.org> or <http://www.greatercity.com>.

President's Message

by Horst Gerber

To start with, I hope everybody had an enjoyable and healthy June. I'm sure we will continue to breed quality fish and show them off at our monthly meetings.

Reflecting on our June meeting, it sure was fun for me when I shocked the crowd into silence for a few minutes with my air horn. It actually worked! It helps to live in a nautical community (City Island) where you can acquire the horns easily. They are quite frequently used by skippers as a way of saying politely, "Get out of my way!" It replaced my quiet voice for a while, and I only had to use my teacher's voice twice. And I'm not even a teacher!

Now back to the future. What do you call a hundred people walking, running, and rushing to the Botanical Garden on the first Wednesday of each month? A stampede! I call it a good start. Some might say fish nuts, but I call it a fish club meeting. Many people suspect that we are not quite sane, doing these unusual things for the love of fish and of the hobby. Forty tanks? Are you out of your mind? How much time do you waste taking care of these things? And I'm only a small fishkeeper, compared with some of my friends who have more than a hundred tanks!

But there are many other hobbyists working quietly behind the scenes, collecting and categorizing new and rare fish. They go through all kinds of hardships to find that rare, unidentified fish. I am reminded of Gary Lange, who gave a program here on Australian rainbowfish a couple of years back. On his most recent collecting trip he had set a personal record for collecting 32 leeches on his back! In Australia and New Guinea leeches live in trees, to drop down on you and drink your blood! Are you ready to make that kind of commitment?

Horst



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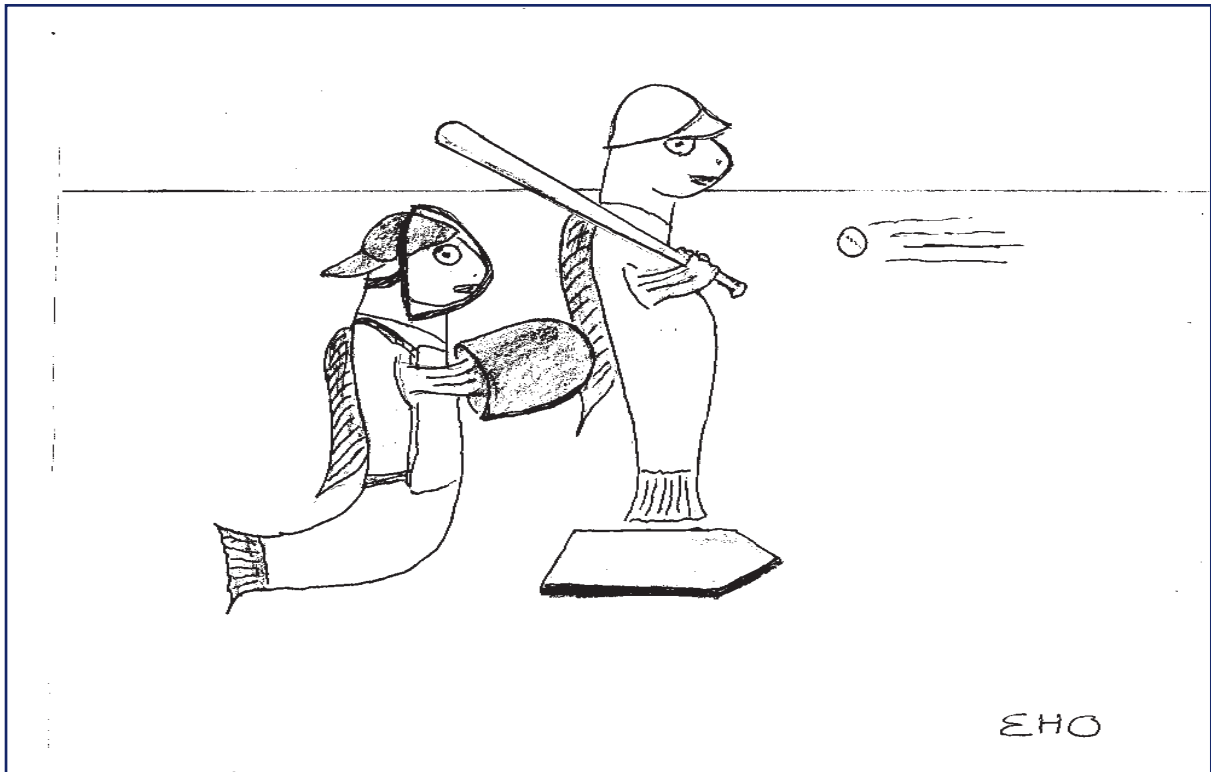
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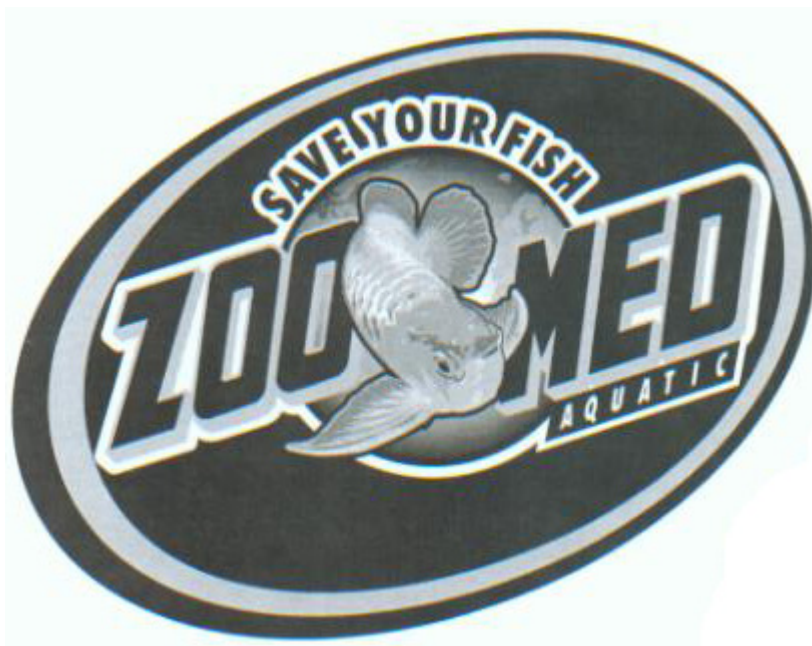
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June's Caption Winner: Al Priest

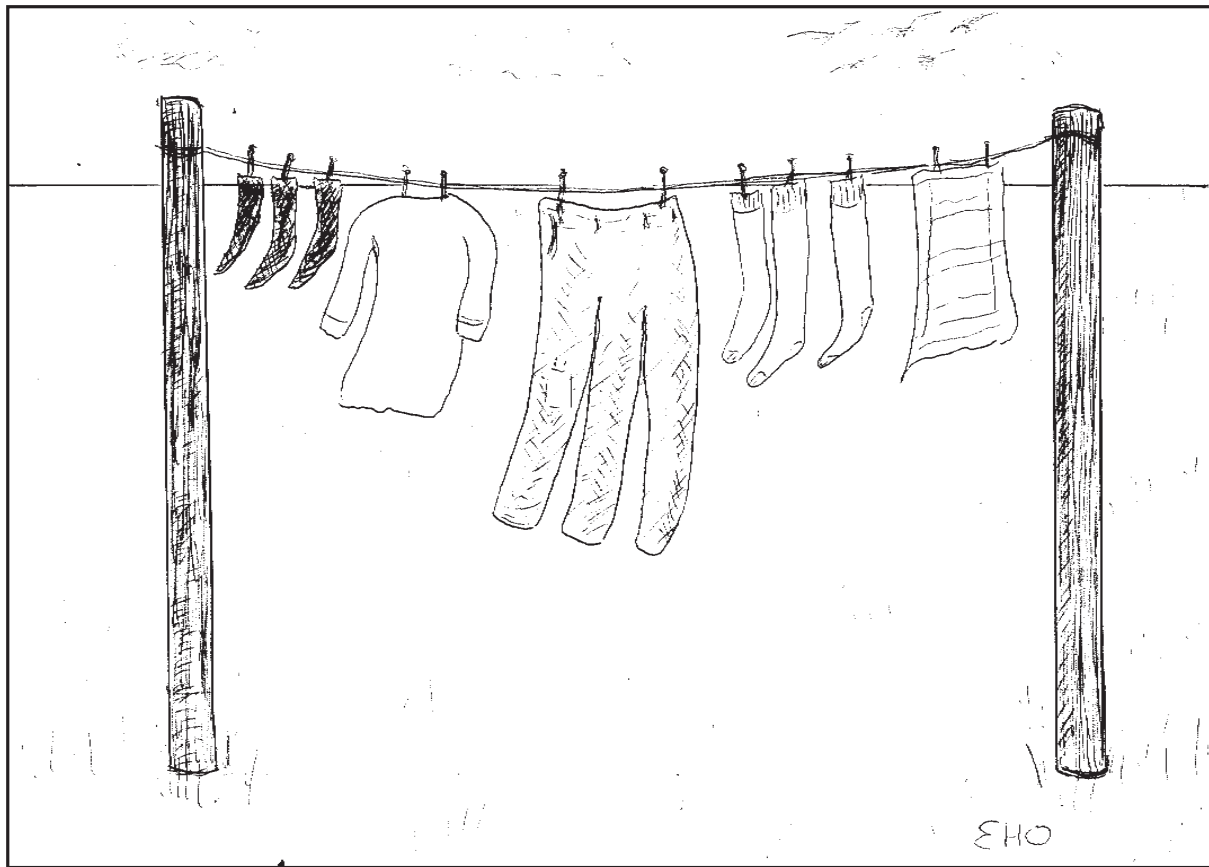


Remember, Swing up, toward the bubblenest!



The Modern Aquarium Cartoon Caption Contest

Modern Aquarium has featured cartoons before. This time though, 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 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:

Fishy Friends' Photos

by Greater City Aquarium Society Fishy Friends

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





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Key Largo's Sea Life: A Photographic Essay

Story and Photos by Stephen Sica

As I was writing the article in last month's issue, I perused my computer's photo files for a few good illustrations. While two photos struck me as being really good, I did not use them for that article. Wisely, in my humble opinion, I decided to save those two photos for the future. As you already know, most people prefer to look at pictures rather than take on tedious reading. I know that I would prefer to look at photos than write a story, but let's keep that our secret. It's one reason that I often write stuff like this rather than discourse on fish related topics.

On the other hand, Donna enjoys going to the local library. She puts popular books on reserve. She just loves the feel of a book in her hands. I used to ask her what her latest novel was about. After thinking awhile, she'd usually answer that they all melded into one another with many similar themes. Right then and there I decided to allow her to do the reading for our family. I don't make this boast lightly. This statement comes from someone who has a master's degree in eighteenth century English literature, but let's keep



Snapper Ledge, a popular dive site, is the home to schools of hundreds of grunts. At any time, you can find ten to twenty or more trumpetfish, *Aulostomus maculatus*, in an area the size of two tennis courts.



A uniformly colored body that can change from bluish gray to dark brown denotes the ocean surgeonfish, *Acanthurus bahianus*. Bright blue lines around the eyes and a crescent-shaped tail are other identifiable markings. They swim in loose congregations of several fish, or by themselves. They often pick algae from the reef, and grow to fifteen inches at most. A common sight for divers.

that a secret too! Those of you readers who have written for **Modern Aquarium** know that it is much easier for an author to use photos than it is to develop an idea, original or not, and write a story.

Now if I can just remember and find those two photos from a few weeks ago, I will include both here someplace. I promise to alert you with a striking

comment, such as "that's one of the photos!" I do this because all of you know that one picture is worth (at least) a thousand words.

I'm back! A day after writing the above, and about two weeks after re-discovering the two striking photos in my previous article, I decided to find those photos before I forgot about them, but could not recall them at all! I was afraid that might happen. I guess that if something

looks appealing one day you had better bookmark it, because it is far less so a few days later. Not (usually) one to make excuses, I might have a flimsy one. After the fact, we had recently taken a mini car vacation and stayed four nights in Ithaca, New York. We just happened to visit ten dog-friendly wineries on the



A school of ocean surgeonfish, *Acanthurus bahianus*, in the dark color variation. Some lighter-shaded ocean surgeonfish (see photo at left) show a light band near base of tail. Does the lone surgeonfish have a light band? The lighter blue individual and this school are identical, except for their color.

shores of Cayuga Lake in nearly four days, along with a goat farm, the Cornell University campus and some scenery in our beautiful state. Did something cause my memory to erase itself? Anyway, back to the story. Again.

Key Largo is an island in the upper Florida Keys, a chain of islands that extends southwest for 100 miles. Key Largo, consisting of three primary islands, is the longest section of the Keys at about 33 miles. Its earlier Spanish name was Cayo Largo, meaning long islet. At the end of Florida's mainland is the town of Florida City. U.S. Highway 1 runs for about 105 miles from Florida City to Key West (mile marker 0). U.S. 1 is mostly two lanes, but expands to four at certain populated towns. I measured the distance from Miami airport to Key Largo at 65 miles.

The 1948 motion picture **Key Largo**, starring Humphrey Bogart, Edward G. Robinson and Lauren Bacall, with co-stars Lionel Barrymore and Claire Trevor, who won an Academy Award for Best Supporting Actress, put the island on the map. The



A small school of great barracuda, *Sphyræna barracuda*, hovers above a sandy patch in front of a coral reef. These fish are just over two feet in length. The largest that I have observed was almost four feet in length. My experience is that they keep a safe distance between themselves and divers.



The business end (the head) of a trumpetfish, *Autostomus maculatus*. One usually finds this fish swimming along or near a reef. This fish never strays from cover and protection, often mimicking the seascape to blend in. The long snout acts like a suction tube to eat small fish. They can change their color to silver, yellow, and blue. A three foot long specimen is not uncommon; most are about two feet.

local post office changed its name from Rock Harbor to Key Largo and expanded its coverage to neighboring communities. Soon many locals became residents of the suddenly famous Key Largo. It became a boon to tourism. By December, U.S. 1 is often bumper-to-bumper with "snowbirds" and other lovers of warm weather. Even so, the water temperature fluctuates down to the low seventies, and even the sixties during a cool winter.

Key Largo bills itself as the "Diving Capital of the World" because of its coral reefs and the number of dive shops along U.S. 1. The reefs begin a few miles offshore, and when the weather and water are calm it's a lovely boat ride of no more than a half hour. Often we encounter sea turtles breaking the surface. If we're lucky, a pod of dolphins will ride the bow waves for half a mile. Every year Key Largo attracts thousands of scuba divers, snorkelers, and sport fishermen. The reason for its current popularity is that Key Largo offers a clean, clear ocean, and lots of it. But for now, here are a few good pictures for a few good "fish club" people.



Now in its initial phase, this young queen parrotfish, *Scarus vetula*, will become a dramatic blue & green as an adult. This currently drab-looking fish develops beautiful fins and tail. While considered common, I cannot recall the last time that I saw an adult on the reef. Young fish are commoner. A one foot youth grows to two feet as an adult.



Dots and lines of bright blue highlight the unique shape and prominent tail of the scrawled filefish, *Aluterus scriptus*. When being observed it often alters its pigment to appear much duller. If you follow from a safe distance usually you will be rewarded by its bright colors. It blends into the seascape while swimming or drifting to search for food. Average size is eighteen inches to two feet.



The four-eye butterflyfish, *Chaetodon capistratus*, is always a sight for four eyes—I mean sore eyes. You will discover several pair and an occasional individual during a forty minute shallow reef dive. They are about three to four inches long, with six inches being the maximum length. Their coloring is quite intricate upon close inspection. They never pose, and avoid divers, so you have to photograph them on the fly or when they stop to eat a tasty algae or coral morsel.



The French grunt, *Haemulon flavolineatum*, has a yellow body and fins with bright blue stripes. In large schools on shallow reefs, they are lovely photo subjects, allowing close approach. They often flow and form around an approaching diver who shows patience when in close proximity. Smaller than White grunts.



The white grunt, *Haemulon plumieri*, a member of an important food fish family, is named for the sounds that they can make. I have never heard a grunt moan or groan, even when they hang in large schools on the shallow reefs that are their preferred habitat. A distinctive feature is stripes only on the head. They often mix in with schools consisting of other grunt family members.



I think that this is a maturing rainbow parrotfish, *Scarus guacamaia*. A mature adult has a fuller body and blunter head. The tail gains a lyre shape with trailing tips on top and bottom. It is the largest member of its family, usually growing to three feet, though individuals can reach five feet. While parrotfish are common, this species is becoming endangered by fishing, and capture for aquariums, because juveniles are quite attractive. This specimen was almost two feet.



I think that this four inch fish, in its initial phase of development, is a yellowhead wrasse, *Halichoeres gamoti*. The two wavy lines that radiate from the eye is a distinctive feature of this wrasse. They are clearly visible in this photo. As it matures, the yellowhead becomes yellow from head to behind its caudal fins, with the remainder of the body becoming blue, purplish, and black.



This is a fairly common fish on shallow reefs throughout Florida and Caribbean waters. I usually see a few on every dive, but I cannot identify it in my reference books. The larger one is about four inches long, and the body shape leads me to believe it is a wrasse. It may be in a juvenile or immature phase that changes to a completely different coloring or body shape. It's muted yellow body with a steel blue to gray forehead always attracts my camera when it does not flee into the reef.





BOWL SHOW RULES

There is a Bowl Show at every GCAS meeting, except our Night at the Auction meeting (August) and our Holiday Party and Awards Banquet meeting (December). These 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 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.
- The current Bowl Show Coordinator is Leonard Ramroop, who usually also serves as judge (although guest speakers are often asked to do the judging honors).
- 2.5 gallon containers are available for use (brought to the meetings by the Bowl Show Coordinator), but entrants are responsible for providing enough (and suitable) water for their fish.
- For a fish too large (or too small) for those containers, entrants must supply a suitable container, which must be clear on at least three sides.
- Only one fish per container (i.e., no “pairs”).
- No plants, ornaments, or equipment (filters, airstone, 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

Natural Aquariums

Story and Photos by Joe Ferdenzi

Many times, when people hear that I maintain some 60 aquariums, they ask me why I like fish so much. I then explain to them that it isn't so much that I like fish more than other kinds of pets, but that I love having slices of nature—the aquariums—in my home. I am fascinated by aquatic habitats—always have been—and an aquarium represents an opportunity to have a piece of the underwater world within my view.

As a result of this fascination, over the years I have always enjoyed seeing photos or videos of the rivers, lakes, and ponds from which our aquarium fish come. I especially like underwater shots. From studying these images I have formed certain opinions about what looks and what doesn't look like a natural aquarium (in this article I am only referring to freshwater).

Before expressing my opinions on what looks natural, let me comment on a couple of styles that, while many may regard as natural, to me are not. One style that has been around for over 50 years is often called the “Dutch” aquarium. In this style, groups of plants are carefully arranged so as to present, in essence, an aquatic garden consisting of plants of different hues, heights, and shapes. A well done “Dutch” aquarium is truly of thing of beauty. But in nature, such arrangements never, or almost never, exist.

A more recent style of aquarium that has become popular all over the world is the so-called Amano style aquarium. This style was first made known to U.S. hobbyists when TFH Publications printed Takashi Amano's ground-breaking book, **Nature Aquarium World**. The photos of aquariums in that book were truly breath-taking. Amano spawned legions of imitators, many of whose works were on display in annual international contests in which entries were judged and substantial prizes were awarded. These entries were nothing short of amazing. In my opinion however, while these aquascapes were altogether stunning and worthy of admiration, they were straying from what I consider to be truly natural aquascapes. Indeed, many of them resembled terrestrial landscapes that had been transported to an underwater world.

Some were so stylized that they were worthy of canvasses and frames, to be hung in a museum.

True enough that both Dutch and Amano style aquariums are natural in that they use only materials created by nature—plants, sand, rocks, wood—as opposed to those clearly created by humans—ceramic castles, lead divers, plastic caves, etc. But that alone does not make them natural in the sense that I am using. Add to that the fact that both styles require a great deal of effort to maintain, whereas a truly natural aquarium does not require such fastidious upkeep, and you can see a practical benefit to a more natural approach.

When I look at underwater photos and videos, here is what I see: a lot of sand or dirt, rocks large and small, leaf litter, and all kinds of logs and twigs. I do sometimes see plants, but not always. When I do see them, some (usually one species) are growing in bunches, some are growing above the water line or are floating, and some are semi-

terrestrial and growing on the banks. What I do *not* see are numerous groups of plants growing close to each other as in a so-called Dutch aquarium. While I absolutely enjoy growing aquarium plants, I believe you can have a lovely natural aquarium even without them. But make no mistake about my opinion on this—I prefer to have plants.

So—how do you create a natural aquarium? First, select a substrate, be it sand or gravel, with a



Portion of 65 gallon tank featuring birch tree branches and one type of plant (hornwort)



Closeup of same tank, also showing use of petrified wood

neutral color—gray, brown, or mixtures of these. Needless to say (but I will anyway), red and purple are out! Even green is not recommended. Next, decide whether you want large stones. If so, get what you need from a pet shop or collect your own. The important principle is that, regardless of what you choose, you need uniformity. If you use slate, for example, you can mix red and black pieces, but you should stick to slate only. If you are collecting your own stones, be sure to stick to rocks made of quartz or granite, which are aquarium-safe. You can mix quartz or granite rocks and still have a natural-looking aquarium as long as you avoid extreme color contrasts. For instance, don't have half of them be pure white quartz stones, and the other half be dark gray river stones. That may be charming from an artistic standpoint, but it hardly looks "natural."

If you do not want large stones, you can cover your substrate solely in leaf litter. Many lakes and streams are covered in just that. Leaf litter provides hiding places and microbial food sources that are both welcomed by your fish. You can mix different kinds of leaves, but I don't recommend you use more than two or three different types. What leaves have I used over the years? I have found oak and beech leaves to be safe and readily available. My favorite leaf however, comes from the so-called southern magnolia (*Magnolia grandiflora*). I have one in my back yard in Long Island. This tree is an evergreen, and magnolias very similar to it grow in tropical jungles. In fact, close examination of photos from many underwater habitats reveal leaves that look exactly like *grandiflora* leaves. These leaves are tough, and take a long time to decompose. When upside down, they form natural small "caves" that fish can hide in. As this tree becomes more common even in the northern part of the USA, the leaves should be readily available to simply pick up off the ground (these trees constantly shed leaves).

Next, we come to the subject of wood. It is rare to see an aquatic biotope that does not contain some type of wood—broken branches and even trunks are very common. Pet shops sell a variety of safe "driftwood" for use in aquariums. My favorite of these is the so-called "Malaysian" driftwood, which is actually made from the roots of these dead trees. This "driftwood" comes in many shapes and sizes. Indeed, each is unique, and has the advantage of being so dense that they sink immediately. If you choose to collect your own wood, as I sometimes do, I have some guidelines to suggest. First, do not use driftwood found in freshwater lakes or streams unless you have thoroughly dried it or boiled it. You do not want to introduce freshwater pathogens or parasites

to your tank. I prefer to use driftwood from ocean beaches. The saltwater organisms cannot survive in freshwater, and if the wood comes from the beach the sun and salt will have eliminated any organism likely to contaminate your tank. You can use fresh wood from trees as long as you avoid trees that produce a lot of sap or resin. Pine trees are out! Two trees from which I use relatively fresh branches to good effect are birch trees and willows. This makes sense, as both of these trees have an affinity for watery environments, and do not poison them. I generally use branches that have broken off and fallen to the ground, and that are very small and so unlikely to harbor pests. Spindly birch tree branches with their numerous small endings are surprisingly long-lasting and durable.

Much of the wood you buy or collect will not sink immediately. You can address this by using various strategies. You can, for example, place a few large stones on the wood to hold it down. Done strategically, this does not look unnatural. One of my favorite techniques is to use a branch that is long enough to wedge between two opposite corners

of the tank (usually on the diagonal). Of course you can keep the wood in a bucket of water until it becomes waterlogged, and then place it into your aquarium. Still another technique I have used is to tie the wood to a piece of slate using some invisible thread (if you wish you can then cover the slate with your substrate and no one will know it's there). As with the other elements already discussed, avoid using more than two kinds of wood. It's an aquarium, not a wood and rock collection.



Southern magnolia leaves

How you arrange your wood and rocks is largely up to you; nature has few rules in that regard. The main evil to avoid is that the result looks "man-made." That is, it should not look like everything has been arranged in symmetrical fashion, as is the case in so many of our gardens and in our architecture. Just to give an exaggerated idea of what I mean, do not place a large piece of driftwood in dead center and then have gradually diminishing-sized rocks on either side, thereby creating a sort of miniature mountain.

After you have dispersed your rocks, leaf litter, and wood, look for places to put the "stars" of your aquascape. Yes, I think of plants as the stars, but don't overdo it. Too many plants will not only increase the needed upkeep, but it will not appear natural. This rule applies not only to the quantity, but to the diversity of your stock. Too many kinds of plants in one aquarium does not replicate what you will see in nature. Remember, we are talking about a "slice" of nature in our aquarium (although if you have a thousand-gallon aquarium my advice would be different). If you were



75 gallon tank housing *Neolamprologus brichardi*
notice: no plants, locally collected driftwood



Left half of 55 gallon tank showing asymmetrical
arrangement of plants

to take a “slice” out of any aquatic biotope, it would be unlikely for you to find more than three or four kinds of plants. You can certainly stretch that a bit and still have an aquascape that looks natural, but when you put 10 or 12 varieties in a tank smaller than 100 gallons it will start to look phony.

Remember these are all general guidelines based on my experience, and heedful of the advice that one picture is worth a thousand words, this article is accompanied by photos of some of my aquariums. I

hope that in them you will see that natural aquariums can be varied and not too difficult to create.



Author's note: After I wrote this article I received my July/August 2017 issue of Amazonas magazine. It contains an article entitled, “Reportage: Biotope Aquariums of the Rio Negro,” by Michael J. Tuccinardi, which is on the same subject as this article. I recommend it for its content and its beautiful photos.

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COLLECTING in FLORIDA

by Chuck Davis

Part 1: SOME COMMUNITY KEEPERS

Most of my collecting here in Florida has to do with getting a bucket of feeders for my predatory cichlids and catfish. But in every net full of 'feeders' you may find some 'keepers,' as they all live together in the wilds of south Florida. The feeders are mostly *Gambusia*, but often include *Urophthalmus* and bluefin killies.

Poecilia latipinna, the green sailfin molly, is often both 'keeper' and 'feeder.' Small ones are used as feeders, and the larger ones I keep for my salt-added community aquarium. The larger ones are getting harder and harder to find, especially in 100% freshwater. In fact, in order to collect decent sailfin mollies you must go to some of our brackish water sites. We keep these collecting locales in the 'top secret' mode, because of the scarcity of these magnificent fish. Though the lesser sized and lesser finned ones seem to be all over, the adult fancies are quite elusive.



SAILFIN MOLLY...MALE



SAILFIN MOLLY...FEMALE

These fish, like all mollies, are easy to sex. The males have a very different dorsal fin, that will spread out wide and contains some definitive color and markings (as pictured above). The females are more robust in the belly area and certainly lack the impressive sailfin dorsal. Courting often includes the male showing off that dorsal to the female in a much annoying performance, especially if other males are present.

These mollies are often found in shallow water and near vegetation if available. In the home aquarium I add about a tablespoon of salt (kosher) for every five gallons of water. It seems help preserve them and doesn't affect any other tankmates or live plants.



FLORIDA / AMERICAN FLAG FISH

A second favorite fish for collecting is the American Flagfish, *Jordanella floridae*. They are certainly plentiful down here, but catching the larger adults is often an elusive challenge. I think most of the answer lies in two scenarios: first, catching large ones might be seasonal. I find that the spring is a more likely time to get the adults. Second, location is a factor. The adults tend to be in thick vegetation near deep water, while juveniles hug the banks of the canals and waterways. The deeper you go into the Everglades, the better your chance of finding adult Flagfish.

Flagfish do spawn in captivity, mostly in well planted aquariums. Eggs are laid in clusters in the plants near the surface. Males do a good job of protecting the eggs and fry, while the female is basically ignored after spawning. Before spawning however, she is harassed constantly.

I find that a few flagfish in a community tank serve a wonderful purpose: algae control. Once I had a hair algae problem. It was growing all over a beautiful large amazon sword plant. A club member suggested a few flagfish, which are readily available (as opposed to some small plecos which would require a purchase). He was correct. I added four *J. floridae* to the aquarium, and in about a week the hair algae problem was under control.

Though they are Cyprinodontids, they are considered closely related to pupfish, and are a desirable aquarium fish in many countries. We have a club member from Russia who is thrilled to catch them. He is basically a killie and plant hobbyist, but often collects these *J. floridae* to ship overseas to trade for killies & plants.

The third fish, *Heterandia formosa*, is also native to south Florida waters. This fish is often called the least killie or mosquito fish.

These *Heterandia* are definitely the smallest fish I have ever kept in an aquarium. I think they are the smallest livebearer of all. In fact, some experts say it is the 7th smallest fish in the world.

When netting fish these livebearers show up infrequently, but not rarely. They are small, averaging just above and below an inch long, so finding them in a net full of *Gambusia* requires careful observation. As with most of the other fish mentioned here, I just net and bucket them all, and sort them out in a clear container at home.

Most of these fish prefer to be kept in a tank with live plants. They are usually found in growths of anacharis or saggitaria. I do add a spoon of kosher or sea salt every once in a while.



Heterandia Formosa male



Heterandia Formosa female

Part 2: The Attractive Cichlids



Collecting is great fun, and more importantly, it is exciting. You just never know what will be in your net at each 'pull!' In this chapter I'll talk about mostly cichlids. Not the giants (that's Part 3), but a group of medium sized cichlids often found in the aquarium trade. Pictured above is '*Cichlasoma* *salvini*', a simply gorgeous fish of the mid-size cichlid group. We catch them at all sizes from an inch to six inches. Once with Mike Sheridan (RIP) I dipped into a canal on Griffin next to a Jewish cemetery and came out with a pair of *salvini* that were lit up like Christmas trees! They must recently have, or were just getting ready to spawn. Wanted to put them back, but the law is that if you remove a non-native fish, you cannot return it to the waterway. In a surprise to me, after a few months in my aquarium they never lost their color. Of course they were fed a diet of live black worms, frozen blood worms, chopped shrimp, small *gambusia* and an occasional grass shrimp, as well as an assortment of dry foods, flakes and pellets. They spawned once, but they either ate the eggs or the fry

upon hatching. Subsequently they were sold at the ACA auction of that year. I didn't know how to label them—wild caught? Domestic? F79?

Among the many cichlids we have collected, the firemouth has been one of the most interesting. Always one of my favorites (as evidenced by my tattoo), I enjoyed catching a few of them. The location for these guys was a deep pond just south of the Miami Airport. Unfortunately, since 9/11 that area has been off-limits, and we have not found another location for them as yet.



Another much maligned cichlid that we catch here in south Florida is the black *Acara*. This is a great fish. We rarely catch any large ones, I assume because they stay in deeper water, but we often catch juveniles from 1 to 3 inches. I think they have magnificent markings. Each scale is framed in black, out-lining a special pattern, along with a deep black lateral line accented by two almost circular spots, one mid-body,



and the other at the top of the caudal peduncle. They get to a good size, about 8 inches. They are hardy fish, and pairs remain relatively civil to each other and spawn readily in most circumstances. These fish are found in many completely unrelated locations: the Griffin Road canal, the Route 41 canal, and just north of Oakland Park Blvd. in many canals.

In a previous article I have talked at length about jewel cichlids. They are always found in various spots along the Griffin canal, some county park lakes, particularly at a place called Wolf Lake, where equestrians take horses for a swim, which we refer to as Jewel Lake. We use dip nets, but also have great success with minnow or killie traps. They come out of the lakes and canals bright red, and if fed well they stay that way.



I cannot speak to the resulting fry color of a captive spawning. I do know they are quite easy to breed in the home aquarium. I consider them to be good parents and a joy to have as a pair. What I've noticed about the ones we catch is that they take to eating in captivity almost immediately. Other species usually take five days to two weeks.



Once in a rare while you can catch other African cichlids in certain areas—mostly south of Miami. These are usually escapees from farms, which occurs during severe weather events



like hurricanes, though some claim that much of the distribution of invasive species is caused by natural phenomena like birds catching and dropping fish. I cannot disagree, as I have seen large birds like herons walk right up to my bucket, with me standing there, and take out a large jaguar or Midas cichlid and walk away with it. So I guess any reasonable explanation is possible.



Just to get away from cichlids for a few minutes, we catch other interesting animals in our canals and lakes, including much of the Everglades. Above is an interesting fish called the warmouth (*Lepomis gulosus*). A sunfish, it is very cichlid-like in looks and behavior, meaning it can be mean, predatory, territorial, and aggressive. We catch the small ones in nets, but the larger ones (6-10 inches) on a hook and line using live worms as bait.

The photo at right is a giant apple snail. Certain canals, like the Boca-Rio Canal, produce great quantities of them. They are very interesting to watch in an aquarium. At the top of the facing page you'll see a Spiny Eel. I have actually never caught one, but during the great cold snap five years ago, thousands washed up dead on the shore at a common collecting site.





Spiny Eel

Part 3: The Big Stuff!!

Of course we start with a fish that may well be called the backbone of the cichlid hobby—the Oscar! Interesting thing about Oscars in the ‘wilds’ of South Florida: I never catch any babies! We catch young adults (4-6 inches), and we catch the adults (8-12 inches), but I have never netted an Oscar in the one to two inch size range. What I have seen were two adult Oscars that were caught on a cane pole, using corn as bait, that were a solid bright orange-red. We do see mostly tiger Oscars, but occasionally get tiger-reds. We have also caught some that have a ‘different’ fin configuration, and others that have ‘weird’ markings. The Oscar has now been officially labeled as a game fish by Florida Fish & Wildlife.



Perhaps the second most popular of the big cichlids is the red devil. This fish is predominantly caught in the canals of Miami/Dade. It is caught in all of the usual color variations, from brilliant red/orange to the juvenile markings that seem to never fade. When observing them in a canal (where they are one of the top predators) they school mostly by size. I have seen a neat locale where the adults roam freely, while juveniles often run to the safety of a submerged shopping cart. The

best way to catch them is to use a cast net when they are schooling, but of course a rod & reel will get you a few big ones, using earthworms as bait. These ‘wild’ or ‘feral’ red devils are tough, and will destroy tank raised devils.

Another very popular fish with those who keep big cichlids that we collect in South Florida is the jaguar cichlid, which has become more common as of



late. Caught mostly on rod & reel using earthworms as bait, hooking sub-juveniles from 4 to 8 inches is quite easy. And surprisingly, though they seem to hang out together in storm and transfer pipes, they are usually in perfect condition when caught. Again, these wild-caught fish are too tough to co-habit with tank-raised specimens.

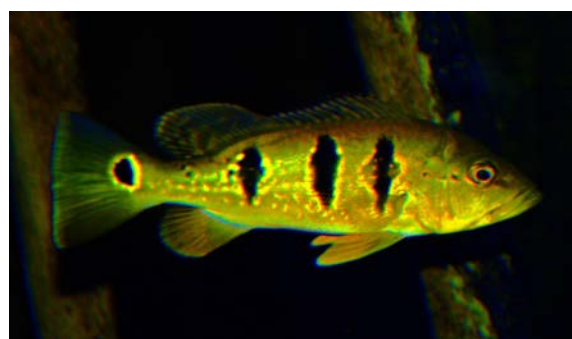
Clown knife fish (right) are breeding in Lake Ida in Palm Beach County. They are caught using surface lures that depict bait fish, frogs, and large insects. Not found elsewhere so far, and having few if any predators, they do well and grow large. Not too often are they taken as pets, but ones that do have ravenous appetites for live foods.

Snakeheads (right) are found everywhere, but so far have eluded me. They are fished often because they are good eating. Other than that, I think they don't serve us well as aquarium fish. They are strong, fast growing, ferocious eaters.

We can't talk about big cichlids without casting the spotlight on one of the biggest, the peacock bass (right, below snakehead). There are a few different species of peacock bass, and they are all big, tough customers. We net plenty of juveniles, and occasionally get a sub-adult. Adults, an official Florida game fish, are caught on rod and reel—not live bait, but mostly on lures that look like bait fish. The Everglades is full of peacocks, and locals actually have tournaments for this big aquarium fish. Top catch so far is about an 18 pounder.



Though we catch quite a few different varieties of *Tilapia*, even hybrids, the only two worth talking about as aquarium fish are *Tilapia mariae* (above) and *T. buttikoferi* (below). Both are known in the aquarium hobby and are reasonably attractive. Small ones are plentiful and everywhere here.

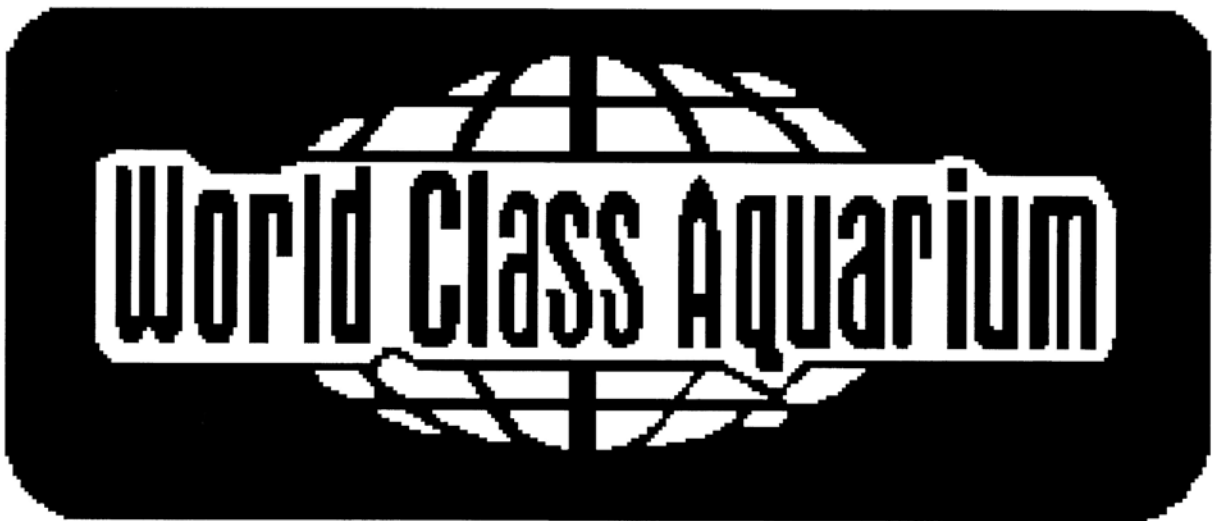


A much maligned, but what I would call an extremely attractive cichlid that we find in almost every canal, is the Mayan cichlid, ex-*Cichlasoma urophthalmus* (below). It bears a bit of a resemblance to the ever popular *Festae*, or Red Terror, and is sometimes referred to as the false *Festae*. Mayans do well in all their adopted habitats. They are an aggressive cichlid, that is to say they are the first to fight, first to eat, and first to spawn. We observed them well during the drought a few years ago when fish were layered in the eddies, and though they were down three or four layers in the water column, when we threw in the bait (food), they were the first to hit it. But they look better in the wild than in a tank.





To the left is a common pleco. We actually collect two or three varieties of plecós, catching mostly very large or very small specimens. The medium size ones are pretty elusive. They adapt very easily to tank life. I put a 12-incher into a 75 that was algae-riddled, and in two days viewing was as clear as in a new tank. So you see we keep quite busy netting and catching fish. It's time enjoyably spent.



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Multi Society Field Trip

by Joe Graffagnino

On Saturday, May 20, five aquarium societies got together and took part in a multi-society adventure/field trip. The aquarium societies were the Danbury, CT Aquarium Society, Greater City Aquarium Society, North Jersey Aquarium Society, Potomac Valley Aquarium Society of Fairfax, VA, and the Brooklyn Aquarium Society.

Leaving at 7 AM from the New York Aquarium Educational Hall parking lot, with special thanks to the director and senior staff of the NYA for parking permissions, we boarded a bus that's first stop was to pick up the New Jersey hobbyists in East Brunswick, NJ.

From there, it was clear sailing to Discus Hans in Middle River, Maryland, where we were amazed at the selection, size and quality of his stunning discus.



It was really tough to decide which specimens we would take home with us.

Next stop was the House of Tropicals in Glen Burnie, Maryland, which boasts 700 aquariums stocked with freshwater fish, marine fish, corals and plants, invertebrates and freshwater plants.



It was tough to reassemble our 45 member troop to get them back on the bus for our scheduled entrance time of 3:00 pm at the National Aquarium, Baltimore,

Maryland. We made the arrival time with a few minutes to spare, where we met our Potomac Valley Aquarium Society group and Michael Barber, who was able to obtain discounted tickets via his and Ian Fuller's tour operation, fish collection and rainforest protection company Go Wild Peru.

While waiting for our bus to take us home, we enjoyed the National Aquarium as well as local stores such as the Barnes and Noble book store which has a 750 gallon aquarium on their second floor. The aquarium has a theme of the Amazon River with beautiful plants, discus, angelfish, multiple types of tetras, apistogrammas, and other fauna and flora that are a part of the Amazon River.

I personally was mesmerized by the hundreds of cardinal tetras that swam in schools throughout the aquarium.

I have included several pictures of the trip that I think you will enjoy. This was a great trip, made possible through the love of our hobby and the cooperation of all five aquarium societies. I for one would enjoy another trip like this in the near future.



A CHANCE ENCOUNTER

by Elliot Oshins

My name is Tom Klein. Let me tell you a little about myself. I am 40 years old and have been married to my wife Jean for six years. I met Jean by chance on a flight from New York to Los Angeles. This is our story.

I make my living as a writer. The last book I wrote, **A Morning, An Afternoon and An Evening**, got great notices, was picked up by the Luxor Movie Studio, and was scheduled to be made into a full-length movie. I was flying to L.A. for a meeting with the head of the studio to discuss the script, and how my book might be made into a movie. The Luxor Studio flew me first class to L.A. Taking my seat, I found myself next to a very attractive young lady. I said hello, and she answered back with a hello of her own, giving me a beautiful smile.

The plane was boarding slowly, and took a little time to fill up; I believe we left about 15 minutes late. I found that in first class the flight attendants treat you like royalty. By the time I adjusted my seat, I had a glass of champagne in one hand and a beautifully prepared platter of food in the other. We'd been flying about one hour when I decided to introduce myself to the young lady sitting next to me.

"Hi, my name is Tom." The young lady smiled and said, "Hi, my name is Jean. Are you going on vacation?" I replied, "No, this is strictly a business trip." She went on to tell me that she was coming from visiting her family and friends who live in Queens, and she was now on her way back to L.A. where she lives. I also found that she was working for a movie company that produces animated movies and cartoons. "So tell me, Tom, what sort of business are you in?" I replied, "I am a fiction and nonfiction writer. I wrote a book three years ago that was on the *New York Times* best seller list. The Luxor Movie Company picked it up, and will be making a movie out of it. I'm on my way to L.A. to meet with the producer and the head writer of the studio to go over the book and help them with the script. Once that's written, the casting will begin and they'll line up the actors."

We had a great time chatting all the way to L.A. The time seemed to pass quickly. The landing was smooth, and as we got up to leave the plane, I

asked Jean for her phone number, and if she would be available to show me around Los Angeles. She opened her purse and handed me her business card, saying "Don't lose it." I said, "Jean, you made the trip very quick and enjoyable." We both headed for the exit.

Walking to the terminal, I spotted my driver, holding a sign that said "Klein." The driver knew I was staying at the Beverly-Wilshire Hotel. The movie company had reserved a suite of rooms for me. Each room had a beautiful basket of flowers and fruit. Once I had checked in, I called the studio and spoke to a Mr. Wilder. We agreed to meet at 10:00 o'clock the next morning. I then called room service and ordered up some coffee and a steak salad, then took a ten minute shower.

Feeling much better, I turned on the TV to watch the news (I'm also a news buff). After relaxing for about an hour, I decided that I didn't want to spend my first night in L.A. by myself, so I picked up the phone and called Jean, who answered with, "What took you so long?"

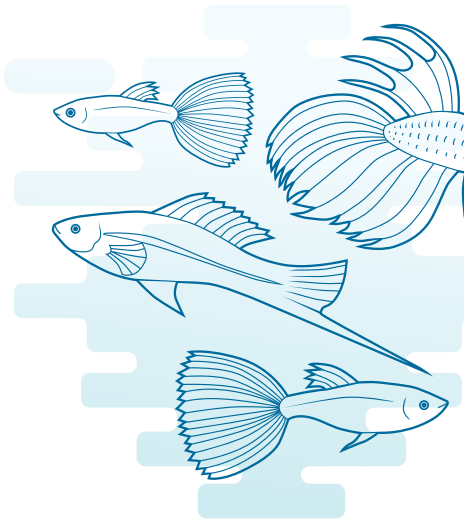
We both laughed. I asked her to have dinner with me, and she said she would love to. She gave me her address, and I told her I would pick her up at 7:30 if that was OK, and she said fine.

After we hung up the phone I called the front desk and asked them to ring me in one hour. I also inquired about where she lived, and asked if it would be convenient to get a car service to drive me to her house. They said it was about a 45 minute drive, and told me they would have a car waiting for me at 6:30.

I arrived at her house around 7:20. Her neighborhood was lush with palm trees, and as she lived close to the water, you could smell the ocean. I paid the driver, walked to her door, and rang the bell.

When she opened the door, I saw that she had changed into a beautiful dress, which I told her looked lovely. She walked me into her living room, pointed to a club chair, and told me to have a seat. She then asked me, "red or white?" We both chose white, and made a toast to new friendship. I thanked her for seeing me on such short notice, and for making my first night in L.A. more enjoyable.

Looking up from my chair, I noticed against one wall a very large fish tank. I personally knew nothing



about fish. However, as a young boy growing up in Zanesville, Ohio, I won a goldfish at the County Fair. That's the only time I had ever come in contact with a live fish. "Jean, that tank is big enough to take a bath in! How large is it?"

"Tom, that tank is 150 gallons. I have no basement, so the tank must be on solid ground." Amazed by it, I replied, "Those fish are very colorful. I didn't know you could grow plants in an aquarium!"

"Tom, you just need the right amount of light. I have lights that have been available for only a very short time. These lights are going to do away with the fluorescent lights that everybody uses. These new ones are called LED lights, and they use a lot less electricity, and generate a lot less heat. I also have a CO2 system that feeds carbon dioxide into the tank to help the plants grow. It must only feed the CO2 into the tanks when the lights are on, or it can kill the fish.

The large plant in the middle of the tank with the big green leaves is called a sword plant. On the right side of the tank there's some Java fern (*Microsorium pteropus*). I have tied it down to a piece of driftwood to hold it down, as you do not bury this plant in the gravel. It grows to about ten inches high. I also have some Anubias plants, which you can also tie onto stones or wood. They are very green, and have beautiful large leaves.

The fish are from South America. The large, half-dollar-sized silver fish there are called angel fish. They will get larger, and they fall into the category of cichlids. They come from the Amazon River. The other fish you see there with the long, pointed back fin is called a swordtail. It usually comes in a reddish color. I also have six platies that are yellow, and have especially black areas on their sides. There are also little catfish in the tank that are called *Corydoras*. They all look pretty much alike. There are also six honey gouramis that come from Bangladesh. I could put more fish in there, but I am happy with what I have. They are all healthy, so I'll leave it this way for a while."

We finished admiring her fish tank and finished our wine, when Jean told me she made reservations at a very nice fish restaurant called The Surfcaster. We took her car, and headed for the restaurant. My only complaint was that Jean drives too fast for me.

The Surfcaster was down by the ocean. We entered the restaurant, were shown to our seats, and given menus. I took it upon myself to order a good bottle of white wine. We both decided on the Mahi-Mahi. Jean explained to me that Mahi-Mahi is also known as dolphin fish and is distantly related to perch. The "dolphin" name causes many people to assume they are porpoises or dolphins, but they are fish, not mammals.

By the time we finished dinner and we headed back to Jean's house it was pretty late. She wanted to drive me back to my hotel but I told her I would call

a car service at her house as it was getting late. She replied, "The way I drive, I could get you back to the hotel in 15 minutes." We both laughed.

When we arrived at Jean's house I called a car service, and had a few minutes to spend with her, recapping the evening. I thanked her and told her that she made my first night in L.A. very enjoyable. She smiled and said that she felt the same way. A quick 15 minutes went by, and I heard the cab honk his horn. I bent over and kissed Jean good-night. She smiled and told me to call her when I got back to my hotel.

The next morning a limousine picked me up to take me to Luxor Pictures. My meeting with Mr. Wilder was scheduled for 10 AM. In the meeting I also met another writer, Bob Singer, whom I knew from my work on a TV story about doctors back in New York.

We worked until 1 o'clock and took an hour for lunch. They changed very little of my story's first two chapters. I realized that working on a script for a movie is quite different from writing a novel. There's much more dialogue, and the script goes through many more drafts and changes. It can't be rushed. I have no idea how long it will take putting dialogue to my novel.

After putting in a full day at the studio I was exhausted, but I decided to call Jean and make a date for the weekend. She was happy to hear from me. We arranged to go to the Monterey Bay Aquarium, which is located on the ocean's edge on historic Cannery Row. It's a window to marine life. There you visit sea otters, penguins, and sharks, to name just a few.

The aquarium was founded in 1984 and is located on the site of a former sardine cannery on Cannery Row. The aquarium benefits from fresh ocean water from Monterey Bay. Years ago I found out that the writer John Steinbeck lived there. We had a great time at the aquarium and then met up with a few of Jean's friends for drinks. I was getting to know and like California living.

I stayed in L.A. for a month and worked on my script at the studio. The script was about ready, and the casting was almost complete. I was spending a lot of time with Jean and we were getting very close and intimate. But the time had come that I had to head back to the Big Apple, as I had new work waiting for me.

Jean and I kept in touch on the computer and by phone. I found I was missing Jean a lot, and found I was very lonely and miserable without her. I couldn't think straight, as I was too smitten. Realizing that I could be a writer anywhere in the world, and I didn't have a nine-to-five job, I decided to head back to L.A. and move in with Jean. The rest, as they say, is a beautiful love story. We got married, and have a cute little daughter who looks just like Jean. I'm also happy to say that I have taken up keeping fish as a hobby, and we now have six tanks!



A Labor of Love

by Sue Priest

In May of this year Al Grusell, our snack table maven, knew he wouldn't be up to the task for June. He didn't want us to be disappointed, so he asked for a volunteer to step in. When no one else had volunteered and the meeting was nearing its end, I thought "how hard could it be to serve a few snacks?", so (my husband) Al and I said "O.K." Well!! Even before we left the building that night we got a lesson as to what it takes to do the job. Would all of this stuff even fit in our car? We were already saying to ourselves "no good deed goes unpunished" before we had even done it.

There are two very large containers of equipment and supplies. Al has to take inventory after every meeting. "Are there still enough tea bags, coffee, sugar, Sweet and Low, napkins, hot and cold cups, stirrers, paper plates, etc., for next time?" If not, he has to shop for them. And that doesn't include shopping for the snacks themselves (he knows what you like). There is also a separate cardboard box because all of the supplies won't fit into the two big ones. He gets to the meeting extra early because the coffee pot takes 45 minutes to perk. And don't forget clean up! (Are you tired yet?)

There are a few more things I could tell you, and probably quite a few more that I don't even know about. With a lot of help from Jason Kerner, the whole thing pulled together, along with a healthy dose of respect for the job that Al does every month.

Here are a few quotes from Al when I was asking him some questions about the job.

"I like to do it."

"I bring extra milk because sometimes there are children at the meeting, and they drink the milk."

"I really like to do it."

"Some people come to the meeting straight from work, and they haven't had anything to eat."

"I really do like to do it!"

"Very few people use the hot water, but I prepare it for them."

From where I'm sitting, all those LIKES add up to a whole lot of LOVE. For Al Grusell, the snack table that all of you enjoy every month is a true LABOR of LOVE!

Speaking of labor, Al told me that his wife sometimes says he is "labor intensive." That is not the

Al that I have come to know. I see a kind, generous and thoughtful man who gives a lot more to Greater City than he gets, and he has been doing this for over a decade. The next time you are enjoying the snack table, be sure to offer Al a hearty and heartfelt thanks.



GCAS's own "Mr. Coffee,"
Al Grusell



Pictures From

Photos by Al Priest



Our speaker was Joe Graffagnino,
long time friend of GCAS



Joe gave us top to bottom views
of his new fish room



Good news! Al Grusell (r) is recovering well from his surgery



Our president, Horst
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Our Last Meeting

We warmly welcome our newest members:



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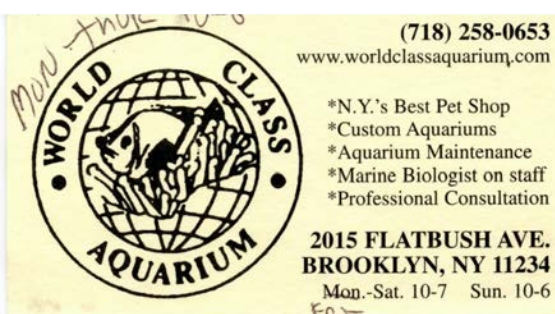


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Meeting Reminders



Almost every month at least one meeting reminder postcard is returned undelivered. Sometimes the member moved and just forgot to update his or her contact information with Greater City. Other times, well it's a mystery—the address was correct, but the Post Office marked it as “undeliverable.”

Unlike some aquarium societies, at Greater City there is never a charge for non-members to attend, there is no “bidder card fee” to bid on items in our monthly auctions, the refreshments are free to everyone at the meeting, and anyone can purchase raffle tickets. But membership does have its privileges, including this award winning magazine, door prize chances, the ability to participate in our bowl shows, and advance reminders of our meetings. If you have an e-mail account, please consider getting your meeting reminders by e-mail, instead of by postcard. You will be getting two notices (one a week in advance, the other a day in advance) instead of only one, and the chances of non-delivery are virtually none (unless you change your e-mail address). While it's a very small thing, you'll even help the environment by using less paper. An e-mail sign-up sheet is at the membership/Modern Aquarium table, or send an e-mail to gcas-webmaster@usa.net.



GCAS Classifieds

FOR SALE: African cichlids -- all sizes, as well as tanks and accessories.
Call Derek (917) 854-4405

FOR SALE: 45 gal Tall tank w/black stand, hood, light.
46 gal Bow brown tank w/stand, hood, light
20 gal tank w/hood, light, filter

Call 516-567-8641

WANTED: 48" Strip light: Fluorescent or LED.
Call Ron (718) 464-8408

FOR SALE: Fish Hobbyist's Dream Home: \$149,500!

Fishroom: 15 X 26 – Almost 400 square feet. 10 Picture-window tanks, with built-in wall shelving underneath for storage. Room for more tanks, with pressurized air system throughout the room. Full sink (hot/cold) with work space; ceramic tile floor.

Pond Room: 12 X 16 – Almost 200 square feet. 300 gallon indoor pond for tropical fish.

Mag pump, ceramic tile floor, large cathedral windows, lots of light for growing plants. Gorgeous views. Great place to read the Sunday papers.



Rest of House: 2 BR, 2 BA, HUGE kitchen with 49 cabinets and drawers. All rooms huge, LR/desk area. Almost 2,000 square feet. Central A/C.

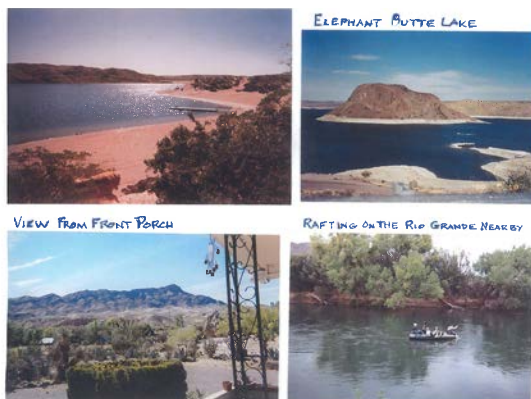
Climate: 340 sunny days last year. Mild winters with absolutely NO snow shoveling.

Location: Truth Or Consequences, New Mexico. Great name, huh? Was formerly called Hot Springs (and yes, we've got 'em). Very friendly community. Cars actually stop for you to cross the street. Rarely hear a car horn. Two blocks from town.

House Location:

On historic site for Geronimo and his braves, where they ground holes in huge boulders (on the southern edge of the property) for cooking maize. Evidence still there (placard next to property). Just 20 feet below us stands a fish pond stocked with trout, and another hundred feet down is the Rio Grande River, for rafting, tubing, and fishing. For even greater bass fishing, we're only five miles from Elephant Butte Lake, the largest

lake in New Mexico, which also features water sports such as boating, swimming, fishing, jet skiing, etc. There are two marinas.



View: Tremendous! From the front porch (completely tiled) you have the best view of Turtleback Mountain rising majestically above the park and river in front of you. Breakfast on the porch is breathtaking! Lunch too!

Taxes: Only \$600 per year.

Summing Up: We lived here for more than 23 years, and I had both the fish pond and the fishroom built for my hobby, but I'm now well into my 80s, and it's time to retire from the hobby. We watched our grandchildren grow up as they spent all their summers here. Irreplaceable memories. You could have some too.

Charlie Kuhne: (575) 894-2957





GCAS Happenings

July

Last Month's Bowl Show Winners:

- 1 CARLOTTI DEJAGER
- 2 WILLIAM AMELY
- 3 RICHARD WAIZMANN

UNOFFICIAL 2017 BOWL SHOW TOTALS:

WILLIAM AMELY	12	CARLOTTI DEJAGER	8	RICHARD WAIZMAN	7
JEFF BOLLBACH	5	ED VUKICH	4		

A WARM WELCOME BACK TO RENEWING GCAS MEMBER JASON IRIZARY!

A SPECIAL WELCOME TO NEW GCAS MEMBERS JASON GOLD AND PABLO LAGOS!

Meeting times and locations of some of the aquarium societies in the Metropolitan New York City area:

GREATER CITY AQUARIUM SOCIETY

Next Meeting: August 12, 2017

Speaker:

Event: *A Night at the Auction*

Meets: The first Wednesday of the month (except January & February) at 7:30pm:

Queens Botanical Garden

43-50 Main Street - Flushing, NY

Contact: Horst Gerber (718) 885-3071

Email: gcas@earthlink.net

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

BIG APPLE GUPPY CLUB

Meets: Last Tuesday each month (except Jan, Feb, July, and August) at 7:30-10:00pm.

Alley Pond Environmental Ctr.: 228-06 Northern Blvd.

Contact: Donald Curtin (718) 631-0538

BROOKLYN AQUARIUM SOCIETY

Next Meeting: September 8, 2017

Speaker: Joshua Wiegert

Topic: *Brackish Water Fish*

Meets: 2nd Friday of the month (except July and August) at 7:30pm:

NY Aquarium - Education Hall, Brooklyn, NY

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

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

LONG ISLAND AQUARIUM SOCIETY

Next Meeting: September 15, 2017

Speaker: TBA

Topic: TBA

Meets: Olive Garden Restaurant

257 Centereach Mall,

Centereach, NY 11720

Phone: (631) 585-4027

For map directions, go to olivegarden.com/locations/ny/centereach/centereach-mall/1507.

Email: Margaret Peterson - president@liasonline.org

Website: <http://liasonline.org/>

EAST COAST GUPPY ASSOCIATION

Meets: 2nd Tuesday of each month at 8:00 pm.

Alley Pond Environmental Ctr.: 228-06 Northern Blvd.

Contact: Gene Baudier (631) 345-6399

NASSAU COUNTY AQUARIUM SOCIETY

Next Meeting: September 12, 2017

Speaker: TBA

Topic: TBA

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

Molloy College - Kellenberg Hall ~1000 Hempstead Ave -

Rockville Centre, NY

Contact: Mike Foran (516) 798-6766

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

NORTH JERSEY AQUARIUM SOCIETY

Next Meeting: July 20, 2017

Speaker: TBA

Topic: TBA

Meets at: Days Hotel, East Brunswick NJ

Contact: NJAS Hotline at (732) 332-1392

Email: tcoletti@obius.jnj.com

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

NORWALK AQUARIUM SOCIETY

Next Meeting: August 17, 2017

Speaker: Dr. Paul Loiselle

Topic: TBA

Meets: 8:00 P.M. - 3rd Thursday of each month except for July & December at: Earthplace - the Nature Discovery Center - Westport, CT

Contact: Sal Silvestri

Call our toll free number (866) 219-4NAS

Email: salsilv44@yahoo.com

Website: <http://norwalkas.org/>

Life Imitating Art?

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.

Unless you've been hiding in a cave for the last decade or so, you should have at least heard of the book series "A Song of Ice and Fire" and, if not you almost certainly have heard of the cable TV series "Game of Thrones," based on those books.

OK, what does this have to do with fish, you may ask? Well, in recent exploration of the abyss off eastern Australia investigators have discovered several new deep-sea creatures.

Among the discoveries was a brittle-star fish discovered in the waters of New Caledonia, at a depth of 902 feet.

It has been named "Game of Thrones Brittle Star," with the scientific name of *Ophiohamus georgemartini*, because its sharp thorns are similar to those depicted on the Game of Thrones crown found on the cover of book two in the Game of Thrones series, "A Clash of Kings."

Dr. Tim O'Hara, a Game of Thrones fan and one of the world's leading authorities on ophiuroids (brittle and basket stars), noted the similarities when deciding on a name for the new discovery.

Unlike true starfish (class Asteroidea), who "hover" slowly along the seabed on hundreds of tube feet, brittle stars move quite rapidly, wriggling their long, flexible arms to get from A to B. Also known as "snake stars," the body and arms of these animals are protected by hard, calcium carbonate armor like you see in the image below, which depicts the fish (left) next to the "Crown" (right) from the book.

(In case you're wondering about the scientific name, George R.R. Martin is the author of the book series.) I wonder if this column qualifies to have a species named after me (*undergravelini*)?



References

<http://www.wired.co.uk/gallery/scary-deep-sea-creatures>

<http://nerdist.com/meet-the-game-of-thrones-brittle-star-ophiohamus-georgemartini/>

Fin Fun

FAMOUS FISH

See if you can match up the photos of some famous persons with the fish named after them

<i>Tosanoides obama</i>	
<i>Etmopterus benchleyi</i> (Ninja lanternshark)	
<i>Zappa confluentus</i> (New Guinea slender mudskipper)	
<i>Materpiscis attenboroughi</i>	
<i>Etheostoma teddyroosevelt</i> (Highland Darter)	
<i>Pycnomma roosevlti</i>	

Solution to our last puzzle: **BACK to NCAB**



Pete D'Orio



Ed Vukich



Andrew Jouan



Ron Webb



Koi Organisation International

We can help!

Learn Online

www.KoiOrganisationInternational.org

