

In Depth

January—February 2018



Breeding the Clown Killifish

Freshwater Sponges

DIY: Building a Breeder Box

Visit to Segrest Farms

Calendar of 2018 Events

and so much more!



Congo Tetra, male. Photo by David Banks, Jr.

In Depth

published by The Tropical Fish Club of Burlington

Established February 1989



We meet on the second Thursday of each month, September through June, at 6:30 PM at the VFW Hall, 73 Pearl St, Essex Junction, VT.

Our membership consists of adults, children and teens. Many members are very experienced and have been keeping fish for years, and others are just getting started. People of all ages and experience levels are always welcome. Meet and learn from those who share your interests!

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Amititlania nanoluteus guarding her fry. Photo by Ann Whitman

From the President

by David L Banks, Jr



Welcome to 2018! We have a great lineup of speakers for this year so far, even in the winter months. We start off January with Sam Rutka from Maine to talk about paludariums, a combination of aquariums and terrariums. Sam has the cover article in the Jan/Feb issue of Amazonas, too, so you can read about what he will talk about ahead of time.

February's program will be a presentation by Ira Gardner-Morse on fish room design. Even if you are not planning a fish room, I think there will be lots of interesting ideas and topics that could apply to any fish keeper. The rest of the schedule is posted on our [web site](#).

We have also scheduled our 2018 Burlington Aquarium Fish, Frag and Reptile Swap Meet at the Holiday Inn, Williston Road, South Burlington, for Saturday, April 14th. This event has grown over the past few years, and, barring the snow storm like the one we had last year, I expect it to grow even more this year! Tables should be reserved ahead of time as I expect we will sell out this year. Please contact Brian Candib or me to reserve a table now. Club members with five or fewer items can use the club table or share with another member.

At the November meeting, we were treated to a talk on rainbowfish and blue-eyes by Ken Boorman. Ken lives in Ontario and he is originally from Australia. He showed us the many species found there. Ken also spoke up in Montreal the night before our meeting.

Our December "meeting" was held at Wicked Wings and we enjoyed good food and lots of holiday cheer! Thanks to all that brought desserts; they were all so delicious! Thanks go out to Collin for hosting us and serving everyone while we sat around and chatted. Janine got everyone into the holiday spirit by wrapping all the door prizes, one for everyone. While many were the same, there were a few sleeper prizes. Sometimes it is just nice to relax and enjoy our great members!

On a more personal note, the reprint in the Nov/Dec issue of In Depth could not have been more timely. It has been years since I overfilled a tank, but as I was checking email, etc and keeping an eye on the tank I thought I was filling, I soon realized that it was the tank below the one I was watching that was filling! I caught it fairly quickly, but it had already overflowed and water was quickly flowing across the floor. I ran to shut off the water, drained a little more out of the tank so it would stop spilling, and threw a few handy towels down. Then ran for the wet/dry vac! Hopefully it will be years again before I get that same sinking feeling.

Anyways, Happy New Year and hope it is a very good fishy year for all!

David

Editorial

Planaria: Scourge in My Shrimp Tank

By Ann Whitman

My Fluval Chi tank is devoted exclusively to a colony of red cherry shrimp and lush green plants. Or so I thought. Despite seeing berried females and other adult shrimp, I was disappointed not to find any new babies or juveniles. Despite regular water changes and feeding, the population began crashing, shrimp were disappearing.

I had noticed tiny flat worms crawling on the glass after the lights went out and knew they were planaria, but didn't think much about it. They just seemed to be part of the natural environment in the small tank. I figured they just ate detritus and leftover food. Recently, though, I looked them up on the internet to get more information. To my horror, I read that they also eat fish eggs and kill shrimp! They can flatten themselves and insert their bodies between the carapace and the abdomen of the shrimp.

Getting rid of the planaria without dismantling the heavily planted tank or killing the remaining shrimp seemed like an impossible challenge. There's a product called No-Planaria by Genchem, but I hoped to find a cheaper, DIY alternative. A quick search on planaria traps turned up some good options. I decided to make the water bottle trap, which required nothing more than a water bottle and a needle, plus a small bit of fish food for bait.

To make the trap, I used a sewing needle to make about 5 or 6 small holes in the bottom of a small, empty water bottle. I dropped in a brine shrimp pellet and filled the bottle with water in the aquarium, then screwed on the lid. After tipping the bottle upside down and squeezing to get the air out, I pushed the bottom of the bottle down into the gravel about 1/4". After about 3 hours, I checked the bottle and found at least 50 or 60 planaria crawling inside. Gross! This was a bigger problem than expected. I killed the contents of the bottle with very hot tap water, then reset it for another round. I've reset it 5 or 6 times over the past few days and every catch is smaller than the last, but I'm still catching planaria.

Ultimately, I may have to resort to either tearing down the tank and starting over or purchasing a chemical to kill them. Since they live in the gravel, it's difficult to depend on fish to eat them all. And they are quite prolific and can even reproduce by regenerating from separated body parts. Cut one in half, and you will get two planaria! This was fascinating information in biology class, but not so much now that I have an infestation in my tank.

I've restarted my shrimp colony in a new tank for now, and will watch more carefully for any flatworms in the future. I'll keep my simple trap handy for testing my tanks, too, since fish eggs, small fry and shrimp are especially vulnerable, and planaria could be hiding and waiting for their prey.



Close up of planaria. Image from Shrimp-Keeping.com



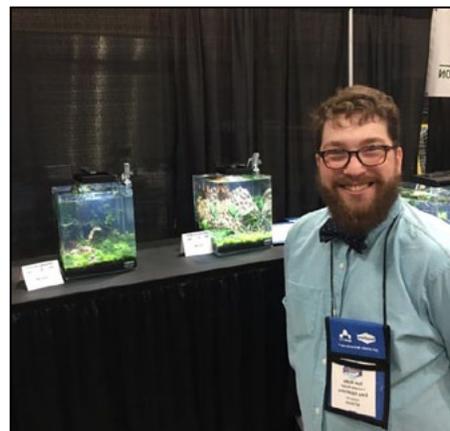
Planaria caught in my water bottle trap.

Speaker of the Month: January

Building Paludariums

Sam Rutka

Sam Rutka is the freshwater manager and aquascaper for [Easy Aquariums](#) in Gorham, Maine, a plant specialist for the New England Aquarium in Boston, and a contributor to AMAZONAS Magazine. His article “Paludarium Primer” was featured on cover of the current Jan/Feb 2018 issue of AMAZONAS.



He has been keeping aquariums since the age of 10, and planted his first garden when he was only four years old. He originally started with only live plants and then quickly learned of the beneficial relationship between them and the aquatic creatures that take refuge in or get roughage from them. He became obsessed with the efficiency of the relationship between plants and animals, specifically aquatic plants and fish.

Sam will talk on a topic close to his heart: Paludariums, what they are and how they are made. From the different tank options to waterfall design, he will display photos of tanks he has built and share the tricks of the trade to help you create the perfect ecosystem in your home.

Questions are welcomed and encouraged throughout the presentation!

Speaker of the Month: February

Designing and Building a Fish Room

Ira Gardner-Morse

Ira will talk about fish room design: scaling your hobby from just a couple tanks to a dedicated space full of them. He'll cover room planning, setting up tanks, controlling heat and humidity, options for lighting, minimizing electricity and water usage, and taking advantage of economies of scale. He'll also touch on a few tips and tricks from successful hobbyists, ranging from unique ways to breed fish to useful gadgets.



Ira designed his own high-tech fish room and has visited many others in his travels. He will share his own experiences, mistakes and successes, as well as those of others. Even if you don't have or plan to have a fish room, Ira will have plenty of tips and ready-to-use information for all of us.

NorthEast Council of Aquarium Societies 43rd Annual Convention

March 16-18, 2018
Rocky Hill, CT

FOR OVER 40 YEARS...
ONE OF THE COUNTRY'S
PREMIER TROPICAL FISH
HOBBY EVENTS!



JIM CUMMING
Canada
Madagascar Cichlids
S. American Cichlids
Tropical Fish Ponds



ADAM HARRIS
CT
Micro
Herp
Keeping



CHRISTINE KEYS
DC
Building
Fishrooms
Cichlids



SHANE LINDER
VA
Cattfish & Plants
Collecting in
South America

18
PROGRAMS!
10
SPEAKERS!



RICHARD PIERCE
MA
Caribbean
Poecillids



KYLE PILLER
LA
Fish Taxonomy
Livebearers



KARL TROCHU
FL
Fancy Xiphs
Fancy Mollies



MIKE TUCCINARDI
CO
Biotope Tanks
Stingrays



EMILY VOIGT
NYC Journalist
Global Arowana
Trade & Hobby



KRIS WEINHOLD
MD
Hardscape
Demo
Photography



FANCY GUPPY SYMPOSIUM & AUCTION
TUB POND SYMPOSIUM/PLANT AUCTION

VENDOR & MANUFACTURER HALL:
fish, plants, foods, hardscape, & equipment

MORE AUCTIONS ALL WEEKEND LONG:

Hundreds of fish-inverts-plants-dry goods
buy * sell * donate to a non-profit

- All-Day Sunday Super Auction
- Silent Auction for Conservation
- Speaker Program Mini Auctions
- Killie Auction

HOSPITALITY SUITE!

LUNCH n' LEARN:
Fish Club Marketing Tips

FULL-COURSE MEALS!

**DINOSAUR
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Club Meetings and Events

by Ann Whitman

More than 20 club members and their families enjoyed an evening of conversation, food, drink and merriment at our annual holiday party. We skipped the customary Yankee gift swap, but Janine made sure everyone had a surprise gift by wrapping each of the “raffle” items. The party is usually held at a member’s house, but this year we celebrated at [Wicked Wings](#), a restaurant owned by TCFB member Collin Sourdif. Plates of onion rings, deep fried mushrooms, salad and spicy wings made everyone joyful, as did the many delicious desserts. Many thanks to our host, Collin!



Our host Collin (above), Brian and Tami Candib (left), Collin and his daughter (below left), Dave Isham and Tom Smith (below right).





Roy, Dean, and Jeni (left), Janine and David Banks and Dave (middle left), Noah and his mom Caroline (middle right), Lee, Dave, Rob, Brian and Tom (lower left), Brian and Rob (lower right).



CALENDAR OF COMING EVENTS

- Jan 11 [TFCB meeting](#), speaker Sam Rutka, on Paludariums, VFW, Essex Jct, VT
- Jan 14 [Danbury Area Aquarium Society auction](#), Carmel, NY
- Feb 8 [TFCB meeting](#), speaker Ira Gardner-Morse on Building a Fish Room, Essex Jct, VT
- Feb 18 [Pioneer Valley Aquarium Society auction](#), Chicopee, MA
- March 2 - 4 [The Big Fish Deal 6](#), Rockville Centre, MD
- March 3 [New England Frag Farmer's Market](#), Storrs, CT
- March 4 [New England Cichlid Association](#), all-species auction, Windsor Locks, CT
- March 8 [TFCB meeting](#), Speaker David Banks on Starting Fish Breeding, Essex Jct, VT
- March 10 [TFSRI auction](#), Cumberland, RI
- March 11 [JSAS auction](#), Manasquan, NJ
- March 16 - 18 [NEC Convention](#), Rocky Hill, CT
- April 12 [TFCB meeting](#), speaker Mark Denaro, topic TBA, Essex Jct, VT
- April 14 [TFCB annual Fish, Frag and Reptile Swap Meet](#), Holiday Inn, So. Burlington, VT
- April 22 [NJAS auction](#), East Brunswick, NJ
- May 4 - 6 [American Livebearer Association Convention](#), St. Louis, MO
- May 10 [TFCB meeting](#), speaker Jen Williams on Aquascaping for non-Aquascapers, Essex Jct, VT
- May 25 - 27 [American Killifish Association Convention](#), Romulus, MI
- June 7 - 10 [NANFA Conference](#), Young Harris, GA
- June 9 - 10 [New England Fancy Guppy Association](#) annual show and auction, Lancaster, MA
- June 14 [TFCB meeting](#), speakers Rich Pierce and Tony Terceira on Fish Photography, Essex Jct, VT
- July 4 - 8 [American Cichlid Assoc. Convention](#), Houston, TX
- July 14 - 15 [SJGG IFGA Guppy Show & Auction](#), Griggstown, NJ
- Sept 13 [TFCB meeting](#), speaker TBA, VFW, Essex Jct, VT
- Sept 14 - 16 [Keystone Clash III](#), New Cumberland, PA
- Oct 4 - 7 [All-Aquarium Catfish Convention](#), Herndon, VA
- Oct 11 [TFCB meeting](#), speaker TBA, VFW, Essex Jct, VT
- Oct 19 - 21 [Aquatic Experience](#), new location, Meadowlands Expo, Secaucus, NJ
- Nov 8 [TFCB meeting](#), speaker TBA, VFW, Essex Jct, VT
- Nov 11 [TFCB annual fall auction](#), Holiday Inn, So. Burlington, VT

Successfully Breeding Wild Caught *Epiplatys annulatus*, the Clown Killie

By Dwight D. Moody

I was on [AquaBid](#) and a favorite seller had some wild *Epiplatys annulatus* (Clown Killie) that were wild-caught in Sierra Leone for sale. Bidding was pretty intense, but I managed to win the bid. I already had a nice 20-gallon tank set up and ready to go with heaters, LED lighting and an old-fashioned box filter. I was planning on using that tank for some Samarai gouramis, but they were unavailable at the time. I decided to use it for the new arrivals instead, once I could get them acclimated to domestic tank life.



Acclimating Wild Fish to Tank Life

Part of getting wild fish acclimated is teaching them that Tetra flake is food they can eat. I am pretty sure that the nice folks that make Tetra flake food do not do air drops of flake food over South American and Africa, so I think it is a safe assumption that wild-caught fish have no idea that flake foods are good to eat. I decided to place a couple of my White Cloud Mountain Minnow (*Tanichthys albonubes*) juveniles that I had bred into a small tank with them to teach them to eat flake food. Contrary to popular opinion, most wild-caught fish do not recognize flake food as something to eat, because they have never been exposed to it, so they need to be placed with other fish used to eating flake food to teach the new arrivals it is good to eat. Once the wild fish see other fish eating it, they will try it and learn it is food. In my experience, this seems to be key to the survival and acclimation of wild caught species.

Breeding and Raising Fry

I had heard that *Epiplatys annulatus* were a difficult species to spawn, because they have very tiny eggs and, not surprisingly, very tiny fry that hatch from these very tiny eggs. The problem seems to be that the fry are so small they cannot eat newly hatched brine shrimp or even microworms, so it is supposed to be difficult to provide sufficient foods of the right size so that they don't starve shortly after hatching. Because of this, I had low expectations of being able to breed them until I could get some specialized food cultures. Instead I focused on getting them acclimated and used to flake food and planned to hatch brine shrimp and provide microworms to the adults to help in conditioning. I am lucky to have tap water that is ideal for killifish because it is very soft (3 degrees DH, about 1 degree KH). All I have to do is use tap water conditioner to remove the chlorine and I am good to go, and can add Blackwater Conditioner for those fish that need it.



Male clown killifish with fry. Photo courtesy of ebay.co.UK.

After I got the fish used to my water and eating flake food, I put them in the existing 20-gallon planted tank, which had a very large Anubias plant, micro hair grass and a large quantity of Java moss, along with a few Java ferns and floating Riccia. And the usual infestation of duckweed. Much to my surprise

about a month later, I was trying to see if I could find the adult fish, while preparing to thin out the duckweed and noticed about a dozen and a half fish about 3/8 of an inch long! It seems my adult fish had liked it so much that they decided to breed and there was enough microfood in the tank to feed the brood. I do not think that Clown Killies are known for laying lots of eggs, but I have noticed in the last week that there are multiple sizes, so at least some of the fry are getting enough to eat. I just took out my remaining White Cloud Mountain Minnow out of the tank, due to concerns it might be eating the fry. Hopefully, I will get an increase in production. The Clown Killie is a great fish and I think a tank full would be a wonderful thing to have. Currently, I think I have about 20-30 in there right now. They are really hard to count because when they are little, they are pretty well camouflaged with their color pattern; it is only when they get bigger that they get brightly colored with red and blue fins. Still not very big, but very attractive.

At this point, I have been successful at breeding wild-caught Clown Killies, and think that a well-aged tank with lots of microfauna is the key to fry survival for species with tiny eggs and tiny fry. I plan on trying to breed Cherry Barbs with the same setup, they are also supposedly a difficult species, for the same reason, tiny fry that need tiny foods. I think it will work.



Mystery Growth in My Aquarium

Spoiler Alert: It's a Freshwater Sponge

By Joan Snider



As a typical fish geek, I spend a certain amount of time each day staring into my fish tanks. It's relaxing and I take stock of how everything's going. I do a little head count, see who's exhibiting potential breeding behavior, who's not doing well and generally give the tank a good look over. Early in the summer, I noticed white growth on some of my plants. I chalked it up to fungused food due to overfeeding, a vice I struggle with. I didn't pay much more attention to it until I saw that it was really taking hold. I still assumed it was due to too much food coupled with too many fish even though I am very diligent in my water change and maintenance regime. This was in a grow out tank full of growing Ancistris and I feed Repashy, zucchini and various pellets daily.

Must Be Something In The Water

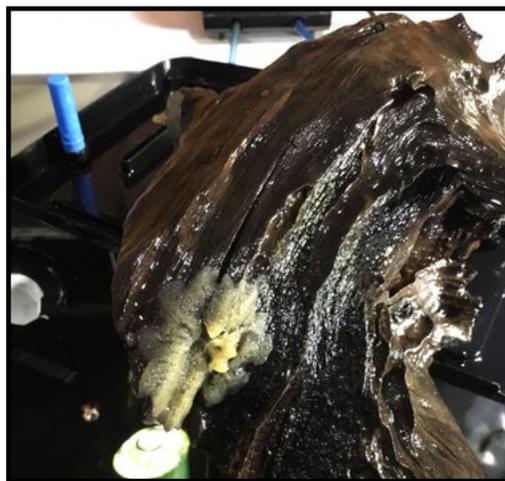
I also have well water that I have issues with that make me question any aquarium-related mystery or fish death so I thought it could possibly be related to that. Some of the fish that I've kept since moving back to Maine have no issues with my water, some have failed to thrive or passed for no apparent reason. My water is high in manganese and iron, but the presence of iron-reducing bacteria has kept the iron level lower. The iron-reducing bacteria is what gives me the most cause for concern. When present, it causes a bad smell in the water along with an orange "slick" on the surface of the water. Periodic bleaching of the well kills it for a time, but since I don't know the source, it's an issue that we haven't resolved yet.



The mystery growth started in a cluster of plants.

Shape-Shifting Growth Expands

Fast forward several months and the mystery growth now has taken form and consists of many branches and is between a golf ball and a tennis ball in size. It is white and very rubbery in nature and has spread to the pieces of driftwood in the tank. It started out as a white, cottony, flat oval and then branches grew out of it. I've kept marine aquariums in the past and recognized that this growth resembled a sponge of some sort, but I couldn't find much information on freshwater sponges. What little information I did find indicated that they were very sensitive to water quality. It didn't seem that the conditions in that crowded, heavily fed Ancistrus tank would be conducive to its vigorous growth.



Next, it moved to the driftwood as cottony patches.

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Searching For Clues

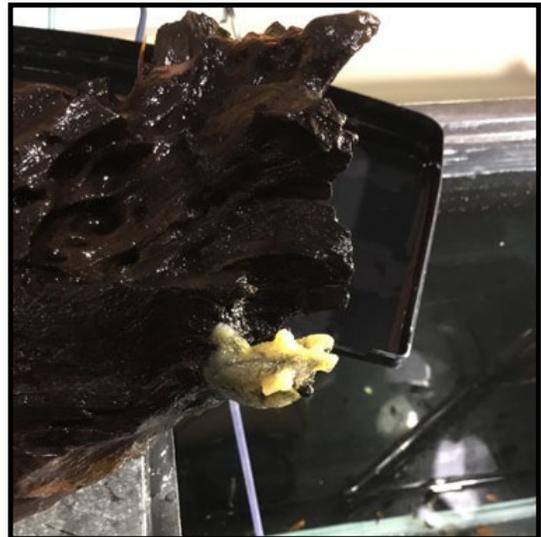
I did reach out to Tannin Aquatics on Facebook to get opinions, and the consensus was that it is a freshwater sponge. My sister, Ann Whitman, found a scientific reference paper on freshwater sponges online and, after some additional research, I believe it to be *Ephydatia muelleri*. It's a tough sponge that's native to the U.S. and Canada. A discussion in the forum at The Planted Tank.net confirmed that freshwater sponges can live in aquariums, especially if the water is high in particulates because they are filter feeders. Ann also contacted Stephan Tanner at Swiss Tropicals to see if he had any knowledge of freshwater sponges. He replied that he had seen them growing in Poret foam filters and that some are detritis feeders. It makes sense, then, that it would grow so happily in a heavily fed Ancistrus fry tank. I can't find anything to indicate that it's undesirable so I'm just letting it be for now.

Getting to the Source

I think we also solved the mystery of its source. Ann took care of all of my fish and plants last winter while I was away (The Snowbirds Guide to Fish Keeping is another story). At the time, Ann's water source was a natural spring, and she has since identified some small sponges growing in one of her Poret foam filters. My guess is that it came in from that water source and I brought it home with me on some plants. I guess it wasn't that big a mystery after all, but it did keep me guessing as it was something I'd never seen before.



The patches began to spread and change shape.



Eventually the growth developed branches and finally resembled a mature sponge.



Remembering Dave Quinn

By David L Banks Jr, TFCB

You know those friends that you met a long time ago that made you feel welcome and that were an important part of your life for a while? Got you going where you wanted to go? Supported you along the way? Enabled you to move forward, teaching you what you needed to learn? You know, the best kind of friends, and the best kind of people. The kind you never forget. Dave and his wife Faith were such lifelong friends. Dave is already missed, and we send our love and encouraging thoughts to his family!

- Janine Banks

When looking back, there are a few people that stand out as major influences to us getting started in the fishkeeping hobby. One of those people was Dave Quinn. Dave and Faith moved to Florida many years ago, so we kept in touch mostly with Christmas cards although they did return north to the NEC Convention a few times over the years. Their card was always one of the first we received every year. When the phone rang the other night and caller ID said Faith Quinn, I was not sure what to expect. Hearing from someone you haven't seen in a while is rarely a good thing it seems. Sadly, Dave had passed away earlier in the week.



Dave and Faith Quinn pictured on one of their annual Christmas cards.

Dave was president of the NEC when we met him, which I think was probably at one of the first ALAS show and auctions we attended in CT in the mid 1980's.

Dave was keeping African Cichlids, which we were just getting interested in. I think he also fueled our interest in *Synodontis* catfish as he had a group of large *S. angelicus* and was working on breeding *S. multipunctatus*. Dave also ran 'Bear Fish,' a small side business to help hobbyists by carrying things for breeders and the advanced hobbyist that many stores did not carry, and at a great price.

Dave, and many others from the NEC, were instrumental to TFCB by supporting the club when we first started it. At our first auction, they all came the night before and stayed over in a hotel, and were there all day for our auction. Dave also came from Rhode Island to speak at one of our meetings that first year on his favorite topic, the peacock cichlids from Lake Malawi.



Labidochromis 'Lion's Cove Lemon Yellow'

One fish that really cemented our interest in cichlids came from Dave, the "Lion's Cove Lemon Yellow" *Labidochromis*.

Dave had acquired his as "wild stock" and was one of only a few people that had them initially. We were able to get fry from him and now these are a mainstay in the Lake Malawi cichlid hobby.

After being in this hobby for over 30 years, I guess it is not surprising that we are seeing some of our initial hobby mentors pass on. It does make you think back to those times and just how we got to where we are today. We have many great memories!

DIY: Building a Breeder Box for Egg Scatterers

by Ann Whitman

In an effort to expand my fish breeding success, I decided to make a special set up for egg-scattering fish, like tetras, barbs and danios. I keep these schooling fish in community tanks, so any eggs they do lay are immediately consumed. In the summer months, I put some species outside in plant-filled tubs and have some breeding success, although never in great numbers. But, summer tub season only lasts about three months here in Vermont, so I needed a more reliable way to breed these fish and collect eggs.



I was inspired by [Ted Judy's video](#) to make a tank-within-a-tank set up, and the similar system used by the NIH in their zebra danio research program. Using this set up, I can briefly remove the fish from the community tank, let them spawn and return them to their home tank. The eggs fall out of the parents' reach and are easy to collect. Here's what I built and the materials needed to make it.

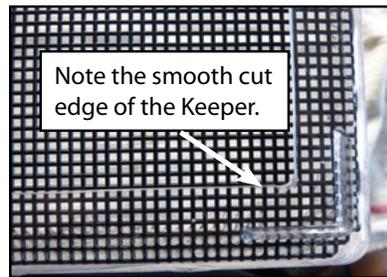
Materials List

Kritter Keeper, large, 3-gallon capacity
Plastic mesh from craft store, dark color
Aquarium silicone sealant
6" to 8" long piece of 1" diameter pvc pipe

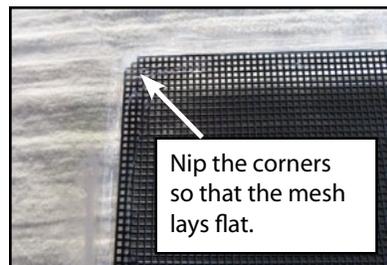
Tools Needed

Dremel tool with rotary cutter blade
Hack saw to cut pvc pipe
Box knife or pocket knife with a stiff blade
Sand paper
Scissors

Step 1. Turn the Kritter Keeper bottom-side up on a work bench. Use the Dremel tool with rotary blade to cut out the bottom, being careful to leave about 1/2" to 3/4" lip around the edges. Take care not to crack the plastic. Smooth the edges with sandpaper to remove rough edges.



Step 2. Use scissors to cut a piece of plastic mesh to fit inside the bottom of the Keeper. Trim the corners and sides until it until it lays flat.



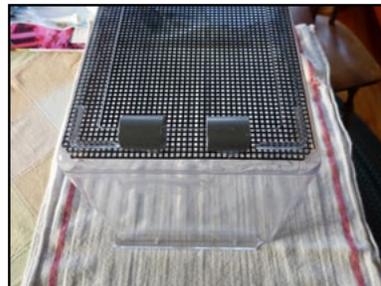
Step 3. With the mesh laying flat inside the Keeper, apply a bead of silicone sealant around the edge of the mesh. Start with a thin bead and use more if needed. Use your finger to press the silicone down through the mesh to help it adhere to the Keeper. Allow this to dry for at least three hours before starting Step 5.



Step 4. Cut the pvc pipe into four pieces with the hack saw, approximately 1" to 1½" each. Tip: Hold the pipe in a vise, if available. Use a knife and sandpaper to remove the rough edges and smooth them.



Step 5. After the silicone has set up for at least 3 hours, turn the Keeper bottom-side up. Use the tube of silicone to glue the 4 pieces of cut pvc to the bottom ends of the Keeper, as shown below. These pvc feet will hold the Keeper up off the floor of the aquarium. Allow all silicone to dry and cure for 24 hours before emersing in water.



Tips for use:

1. Don't put anything heavy on the mesh, especially while it is turned bottom side up.
2. Set the Breeder Box into a half to three-quarter-filled, clean 10 to 15-gallon bare tank. Add a bit of fine-leaved plants or moss and an airstone to make the fish feel more at ease.
3. Separate and condition the males and females until females are full of eggs. Put them together in the Breeder Box in the afternoon and leave them overnight. Well-conditioned fish will usually spawn early the next day. Look for eggs under the Box on the bottom of the tank.
4. Remove the parents and the Box from the tank. Use a turkey baster or airline to siphon the eggs into a hatching container.

In My Travels, Florida 2016

Segrest Farms, Part I

by David L Banks Jr, TFCB

In February 2016, my wife and I spent a week in Florida! Janine did get a day on the beach and a boat ride around the canals, but for the most part it was all about fish. I was down there to speak at three of the clubs, Tampa Bay Aquarium Society, Gold Coast Aquarium Society, and the Fort Meyers club. It was amazing how many people we knew at both the TBAS and GCAS meetings, hobbyists we had met through the years; some that moved south and others we had met at conventions and other fish events.

Our first full day in Florida was a busy one! We got up and ate breakfast before Jim Kuhns met us to take us around. We had met Jim at an American Cichlid Association convention, and Janine had been corresponding with him through Amazonas magazine. First stop was [Segrest Farms](#) where Sandy Moore spent hours with us showing us the various buildings at their main site, but also taking us to some of the satellite farms. This is quite an operation. The main building houses fish that have come in from various sources and were ready to be packed up and shipped out. The tanks and filtration systems, the color-coded buckets and building-wide conveyor belts made this all possible, and it was quite a thing to see in action. They also breed many fish, by the thousands, ummm, maybe millions!

Here is the beginning of our pictorial tour of Segrest Farms, starting with the main entrance and tanks of fish from all over the world. In the future parts of this series, we'll see the shipping process from start to finish, the water treatment and filtration systems, ponds and vats, marine fish and coral, goldfish, aquarium plant tissue culture, and more!



A small roadside sign belies the huge operation behind it.



The on-site testing lab at Segrest Farms.

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Janine enters the main fish building to start our tour.



Staff in the offices have personal aquariums and pet fish, too. The live map on the wall shows where the sun is shining throughout the 24-hour cycle.



Immediately inside the entrance we were overwhelmed by the row of tanks and stacks of collecting buckets.



The fish in these tanks were collected by Project Piaba.



A tank full of *Corydorus duplicareus*, ready to ship. The bar coding and signage are crucial for accurate shipping and inventory control.



Discus tanks! Note the signs on each tank that indicate which fish should be used 1st, 2nd, 3rd and so forth.

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Guppies are big sellers and they had lots of tanks devoted to them.



These red and gold male guppies were especially colorful.



The blue guppy males were striking, even through the etched acrylic tank wall.



Tiger barbs.



Glofish take up a large section of the ready-to-ship area.



We saw quite a selection of odd ball fish, too, like these eels.

To be continued in the next issue of In Depth!

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Pioneer Valley Aquarium Society

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Sunday February 18, 2018

Knights of Columbus Hall

460 Granby Road, Chicopee, MA 01013

Auction starts at 11:30 AM

Doors open at 9:00 for viewing and registration

Auction open to the public—free of charge

DIRECTIONS TO KNIGHTS OF COLUMBUS HALL

From I-91 north or south: Take Exit 12 to I-391 north, go 1 mile to Exit 3, take a right onto Granby Road, go straight thru lights and up the hill, Knights of Columbus Hall is 1 mile on the left.

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For more information contact: Chuck Pixley cpixley18@comcast.net
Jim Corrier jimcorrier1@gmail.com



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No Pre-Registration: 1 red dot, 1 additional dot per 10 bags, 50/50 split, 60/40 for 6 or more* lots, please label your bags, (see auction rules)

*Acceptable lots will be determined by the auction committee

Food & Refreshments Will Be Available

AUCTION HOURS:

REGISTRATION.....8:30 AM – 11:15 AM
VIEWING OF GOODS.....10:00 AM – 11:15 AM
AUCTION.....11:30 AM – 5:00 PM
RAFFLE.....50/50

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2018 Burlington Aquarium Fish, Frog and Reptile Swap Meet

Saturday, April 14, 2018

11:00AM – 3PM

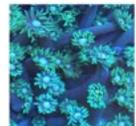
Holiday Inn, Williston RD, South Burlington

Free Admission

Door Prizes and Raffle

Fun Family Event. All are Welcome.

Come see what other hobbyist breeders have to offer!



What to Expect:

Local Breeders, Hobbyists and Retailers selling—

- Freshwater fish, shrimp and plants
- Saltwater coral frags
- Reptiles
- New and used equipment and aquariums.



To Sell at the Swap:

Please register with number of tables desired and a brief description of your items **before March 26th**. Table availability is limited. If any space is still available on the day of swap, prices will increase by \$5.

1 table for \$20 2 tables for \$35 ½ table for \$10

Note: You are completely responsible for your own items and the well-being of your livestock. TFCB holds no responsibility whatsoever for your items or for the health of your livestock.

Setup will begin at 9AM

You may sell any item related to aquariums and reptiles, except species prohibited by the State of Vermont. Please check with TFCB for prior approval for non-aquarium or non-reptile related items.

Questions and Registration:

David Banks - dbanks@together.net 802-372-8716
Brian Candib - bcandib@comcast.net - 802-864-0746

Sponsored by The Tropical Fish Club of Burlington, tfcb.org

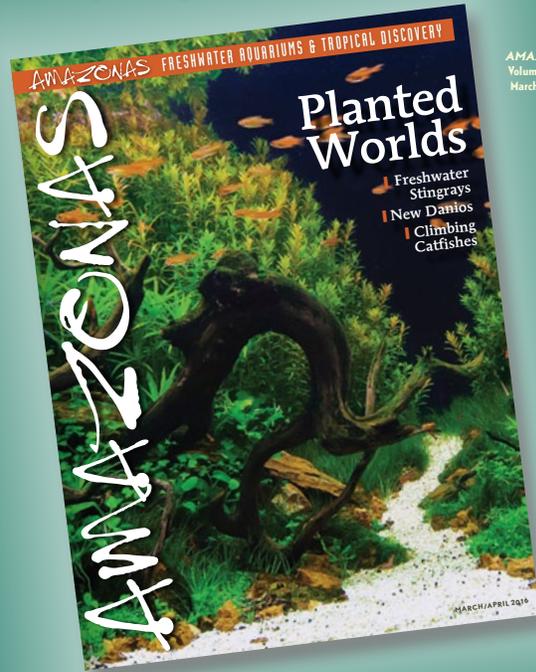


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