

In Depth

March 2017

Breeding Livebearers

Mexican Mollies

Fish Collecting in Florida

Calendar of Coming Events

and so much more!



Don't Miss our BIG Fish, Frag and Reptile Swap
on **April 1st!** No Fooling!



A medium-sized Central American cichlid, *Cryptoheros chetumalensis*, male. Photo by Ann Whitman

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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From the President

by David L Banks, Jr



Hard to believe it is still February with the warm temps we have seen, although we have had some snow this year! Unfortunately the thawing and refreezing has made for some icy situations and I was victim to it. I fell and badly broke my ankle and will be hobbling along for the next couple of months. Of course this means I have had to cut way back on any time in the fish room. Many thanks to Dean Barnes for helping out with water changes and Janine for really taking on the bulk of the feeding, although doing minimal feedings so we have to worry less about water changes! The club had to cancel the road trip to PVAS due, in part, to this, too. We will look at trying to schedule another road trip in the near future.

As I type this, I am also looking at the possibility of missing my first NEC convention in over 30 years, hopefully we will still be able to make it though. (Update: we are going!) I hope everyone else is planning to go though, these conventions are a great opportunity to expand your hobby. There is so much to take advantage of, with the most obvious being the great lineup of speakers. I have always tried to attend as many of the talks as I can, even if I have limited or even no interest in the subject. You can always learn something and it is great to hear someone who is really enthusiastic about their subject. There are also the great auctions, where many hobbyist bring their best fish to sell.

Fish shows are also a great way to learn more about the fish being shown and this year there will be three different shows. The cichlid show being hosted by New England Cichlid for the second year is a great chance to see large adult fish in absolutely stunning condition. Last year the IGEES guppy show was amazing, and got me back into keeping guppies and I now have 6 tanks dedicated to guppies, and could use a couple more! The last show will be an exhibition of killifish sponsored by SNEKA showing off some of their member's species. Killifish are rarely seen in pet stores, and unless you know someone really into killis, you probably have not seen most of the fish that will be shown. This year, NEC is also hosting it's first aquascaping competition. Be sure to check out the shows!

I have always liked the more casual aspect of learning though, by hanging out with other fish people, you gain so much insight and can making lasting friendships. There are so many chances at the NEC convention for this kind of interaction. Plan to take full advantage of all of it, even if you just listen in on a group conversation. The meals are a great place for this, the Saturday night banquet even allows you to sign up to sit with one of the speakers. The hospitality room, although at the end of a very busy day, should also not be missed. There you can have a beverage or two and talk with all the attendees, vendors and speakers, and you can don't have to stay up all night, although I'm pretty sure some do! This year, Cobalt has sponsored the hospitality suite both Friday and Saturday night, at least come to check out what they have planned.

And there is so much more at the convention, so hoping that I make it and that I see many of you there too!

David

Editorial

Fish Collecting in Florida or What I Did On My Winter Vacation

By Ann Whitman



Visiting a tropical country to collect fish has been high on my bucket list since I was a kid. Listening to well-traveled speakers talk about their adventures at our club meetings and other big events fascinates me and stirs my own travel bug. I read collecting articles with enthusiasm, wishing I could have been there, too. How amazing would it be to cast a net into a murky pool or fast-flowing stream and pull out tetras, catfish, cichlids and rare plecos?

Alas, spending money on travel to exotic locales to wade around in swamps and trek through the jungle becomes less likely—and less inviting—as I get older. My spouse does not share my enthusiasm for fish collecting, but we do share the travel budget. So we make compromises. I may not make it to Peru, but the lure of catching my own tropical fish still remains.

As our winter travel plans began to jell late last year, I saw an opportunity to realize my dreams in a different way. Since my husband retired, we decided to spend more time with his siblings and mother. They are conveniently located in sub-tropical Florida—home to more introduced exotic species than any other location on the planet, including fish. Turns out that fishing for “minnows” is perfectly legal and commonplace in Florida, as long as you have a regular fishing license and avoid catching protected species. And, unlike collecting in Peru, we were driving to Florida, so getting fish home wouldn’t be a big expense!

As a Christmas present to myself, I took the advice of other [NANFA](#) members and ordered a [Perfect Dipnet](#) from Johah’s Aquarium. I also discovered a book about collecting fish in Florida and made arrangements to buy it. The excellent “The Florida Collecting Guide”, 4th edition, by Charles Nunziata and Brian Skidmore is an absolute must-have binder of locations maps, GPS collection points and species collected, full-color identification photos, tips and much more. Paired with the Florida Atlas & Gazetteer, I was ready to find fish. For the anticipated catch, I packed our van with buckets and lids, a few Critter Keepers, dip boxes and nets, tubing, air pumps, air stones, water conditioner and Poly Filters.

I got my chance to spend a few days collecting fish with my sister Joan in the Sarasota area in February. That adventure will be the subject of an article in a future *In Depth* or maybe a meeting presentation. Did it satisfy my collecting desire? On the contrary, it whetted my appetite for more. I can’t wait to go back and look for more “minnows” to bring back to my Vermont aquariums.



Ann A big swipe with my new Perfect Dipnet in a muddy roadside swamp yielded a fat hoplo catfish. photo by Joan Snider

2017 Burlington Aquarium Fish, Frag and Reptile Swap Meet

Saturday, April 1, 2017

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 Tropical Fish Breeders 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

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.

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 .

Questions and Registration:

David Banks - dbanks@together.net - 802-372-8716

Brian Candib – bcandib@comcast.net – 802-864-0746

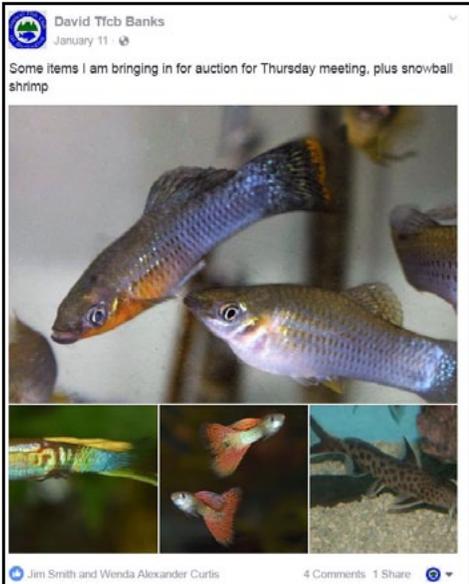
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Club Meetings and Events

January Meeting Recap

by David Banks, Jr.

There was no formal program for the January meeting, however, we had lots to discuss. The meeting started with many door prizes and continued with the usual general conversation with members bringing up lots of great topics of what they were doing with their fish and many interesting questions. There were many positive comments about the December holiday meeting hosted by Ann, too. Even though we were missing some of our regular attending members, we had a good crowd and a few guests. Plus, we had lots of club happenings to talk about. After some talk about the upcoming NEC convention, we had a raffle for a free convention registration, won by Colin Sourdiff! We started the conversation about the upcoming swap meet being held on April 1 at the Holiday Inn. The mini auction started earlier than usual, as there were lots of great items and we could spend extra time talking about each item. Some items were discussed on Facebook ahead of time to help gain some interest. We officially ended the meeting a little early, but everyone stayed around to chat until about 9PM.



Facebook posts whetted members' appetites for the auction at the end of the meeting.

TCFB Monthly Meeting Auction

Date: 1/12/2017

Bioballs

Item Description	NEC BPP	Check Donation or \$0/\$0	Seller	Buyer	Price
1. <i>Poecilia reticulata</i>	x	x	D&J Banks	Rob	3
2. <i>Gambusia petricola</i>	x	x	D&J Banks	Dea	7
3. Round lower sword blonde guppy pair	x	x	D&J Banks	Emily	5
4. Russian red guppy pair	x	x	D&J Banks	Emily	13
5. snowball shrimp	x	x	D&J Banks	Jacob	02
6. <i>Geophagus steindachneri</i>	x	x	D&J Banks	Dean	2
7. sponge filter		x	Jim	Jacob	7
8. <i>Salvinia natans</i>	x	x	Jim	Jacob	8
9. umbrella java fern	x	x	Jim	Jacob	7
10. Riccia	x	x	Jim	Jacob	6
11. pennywort	x	x	Jim	Jacob	2
12. pennywort	x	x	Jim	Sumner	4
13. Valerian	x	x	Jim	Dean	2
14. hygro ss	x	x	Jim	Jeff	6
15. <i>Xcophis corchaon</i>	x	x	Jim	Jacob	3
16. <i>Tau anisatus</i> male		x	Justin	Jacob	3
17. <i>Tau anisatus</i> female		x	Justin	Jacob	3
18. Spotted Raphael catfish		x	Justin	Rob	Rob?
19. cherry shrimp x2		x	Laura John	Jacob	10
20. <i>Cryptocoryne balansae</i> x2		x	Laura John	Dean	7
21. <i>Kribiaensis</i> x4		x	Tom	AlShar	AlShar
<i>Kribiaensis</i> x4		x	Tom	AlShar	1
<i>Kribiaensis</i> x4		x	Tom	AlShar	1

We had a long list of items to auction off after the meeting and many brought good prices!

February Meeting Recap

by Brian Candib

The February 9th, 2017 meeting was well attended by about 15 to 20 club members. Those in attendance were treated to two very good presentations by a couple of our respected hobbyist in the club.

Charles Thompson, Jr came prepared to discuss the “Small Saltwater Aquarium.” Charles is an employee of The Pet Advantage in S. Burlington and brings a wealth of knowledge to the club. He discussed how he got into salt water and started his first tank in 2008, which was large, but common for the time. When a move forced him to downsize his aquaria, he began to experiment with a small 5-gallon reef aquarium.

Charles told us how he had to adapt the environment and best practices to maintain a healthy small reef setup. He shared his failures and successes to give us insight on identifying things to look for in the healthy environment, what factors matter most, and how to correct the little things that can affect a small tank in a big way. He also spent time discussing the expansion of his tank and some of his goals for the coming year.

Our second presenter was Ira Gardner Morse. In my opinion, Ira is best described as the Sheldon Cooper of the fish hobby. He can effortlessly discuss anything aquarium-related and always seems to have great insight and sound advice to offer. I sometimes look at him and think he must have come out of the womb tending an aquarium.

For his segment, Ira gave an introduction to keeping shrimp. He methodically walked through the stages of setup, diet, behavior, breeding and problems to watch for. He showed various breeds of shrimp and rated their ease of keeping from easy to extremely hard. He discussed the fish that are compatible in the same tank as shrimp and those that might not take too big a dent out of the breed with the right environment. (Editor’s note: most fish eat shrimp when given a chance, especially young, newly hatched shrimp.)



Crystal Red Shrimp. photo by Ira Gardner-Morse

For a couple of topics that were supposed to be limited to about 10 to 20 minutes each, I believe each one went at least 40 minutes. At the end of the meeting, we had a lot of plants, shrimp and fish to auction off. We barely could finish on time and be out by 9pm, but these “home-grown meetings” are some of the best we have. Judging from the amount of discussion that occurred, others agreed!



Live rock, coral and anemones in a nano tank. photo by Charles Thompson, Jr.

Strategies for Breeding Livebearers

By Dwight D. Moody

Tropical Fish Club of Burlington – Member, Board of Directors

American Livebearers Association – Member

American Killifish Association – Member

North American Native Fishes Association – Member

All of us at one time or another have bred livebearers, such as guppies, platys and swordtails, or have thought that they might want to at some point. While some species and varieties are commonly thought to be easy to breed, others are known to be quite difficult for various reasons. I have bred a number of species and varieties, including some of the more unusual and difficult species and will share my thoughts and strategies on the subject to help those hobbyists who would like to try breeding livebearers and hopefully put them on the road to success.

Guppy Trap “Traps”

All of us have seen the infamous “guppy traps” at our local pet stores. They are usually small plastic contraptions, usually with a divider so you can put two females in, along with a “V” shaped piece of plastic that supposedly allows the fry to drop out of harm’s way into the interior of the device, which usually has small holes drilled in the plastic of the bottom, which is supposed to allow for water exchange. Unless you are going to put a female into this device who is going to deliver in a few hours, it is not recommended. Typically, the hobbyist will be waiting days for the delivery and of course the mother must be fed during this time. Uneaten food will drop through the “V” and be inaccessible to the fish. Uneaten food and feces that accumulate will then start to decompose and really mess up the water quality with ammonia and other toxins. Combine that with the stress the mother has from being pregnant and her body supporting her brood, plus being confined in a small space and resulting poor water quality, it can quickly result in a dead, pregnant female. One could remove her and clean the device on a daily basis but that is another major stress event that can and should be avoided.

Safer Solutions

A better strategy is to find a larger trap with a grid on the bottom. This allows uneaten food and feces to drop into the tank. If you leave the female with an inch or two of water, her fry will drop into the main tank and be inaccessible to her. Adding some plants, either real or artificial, both reduces stress to the mother because she has some cover to hide in, plus limits her ability to chase any fry that remain in the trap with her, maximizing their chances to escape.

Another strategy is to have so much vegetation in the tank that it really limits the mother’s ability to find the fry after delivery. A tank full of hornwort, cambomba, elodea or other dense submerged plant will work, just leave a small open area for the female in the center of the tank. Once she slims down, you can remove her,



The Least Killifish (*Heterandria formosa*) is a native livebearer that benefits from a heavily planted tank and high quality food. photo by Ann Whitman

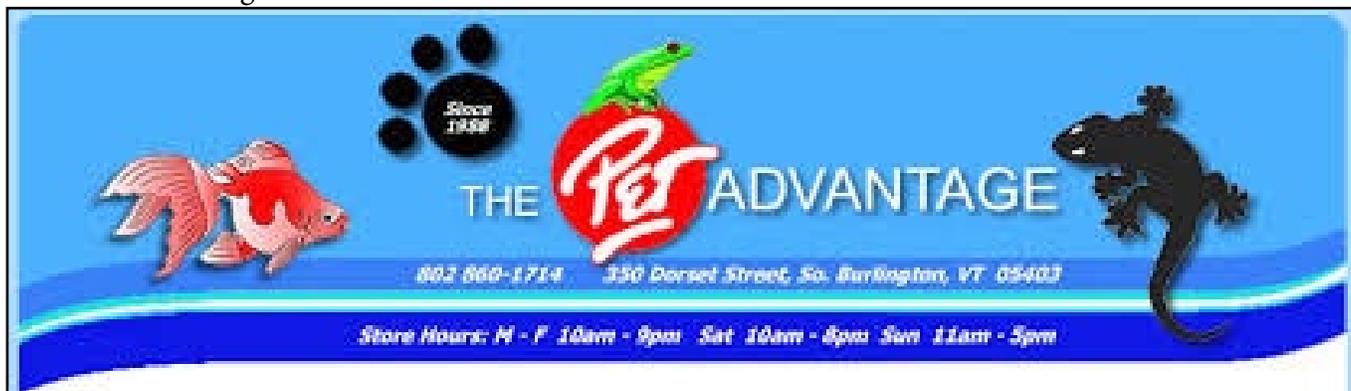
then either leave the fry to grow in the tank they were born in or remove the plants and net out the fry if you want them in a different, grow-out tank. Another associated strategy that I use when letting females deliver in planted tanks is to capture and relocate the fry into a net breeder, which keeps them in the same tank and the same water but inaccessible to the adults. When I find fry in the main tank, they get scooped out with a plastic jar and carefully relocated into the net breeder, allowed to grow then put into another grow out tank. The use of a plastic jar instead of a net is much easier on the fry than using a net, which can easily injure or kill small fry. This strategy works very well for species that are totally unsuitable for breeder traps, such as halfbeaks and other sensitive species, or ones that have females that are too small for breeder traps, such as *Heterandria formosa* (Least Livebearer, a native species) or *Neoheterandria elegans* (Tiger Teddies).

Feeding For Bigger, Healthier Broods

One thing that I have noticed when breeding livebearers is that high quality foods, including live foods, are very beneficial for pregnant females and to ensure healthy fry. Mother fish that do not get enough high-quality protein seem to have more fry that are born dead or deformed and also seem more likely to prey on the fry. This makes sense when you realize that the fry are a huge protein drain on the female and she needs lots of protein not only for the current brood, but they next one that will start developing after the current brood is delivered. Most fish view anything that can fit into their mouths as food, which often includes their own fry if hungry. Fish which have full bellies of high quality flake (45% protein or more), plus plenty of high quality live foods, have their needs for protein met and do not need to prey on their fry to get the protein they need.

I have successfully raised *Gambusia affinis holbrooki* (South Florida melanistic variety of *Gambusia*) by in-tank breeding, which some people say is impossible because *Gambusia* always eat their fry. Obviously, some must escape in the wild, otherwise they would be extinct, and in my tank, I always provided lots of good food and cover for the fry to hide in. I also think that fish learn what they experience. Breeders of show guppies that have always kept more live foods in the tanks than their fish could eat, tend to have fry that were ignored by the females. Those fry never learned that mother fish try to eat their offspring. So they end up with females who spawn in the tank and totally ignore the fry. This is also the case with most molly species, which generally leave their fry alone.

When selecting foods for your fish, look at the label. You want a brand with a good reputation and at least 45% protein. Live foods are good, and Daphnia, brine shrimp and mosquito larvae are all excellent choices when they are available. Frozen foods are excellent, have the same or better nutritional value as live foods and are a lot more convenient. Microworms and newly hatched brine shrimp can be easily cultured year around and make excellent foods for fry and the smaller adult livebearers. Couple good food for the mothers with extra for the kids, and the next thing you know, you will have a whole lot of juveniles to bring to fish club meetings for the auction.



The Mexican Molly, *Poecelia mexicana*

by David L Banks Jr, TFCB

Many times you hear the term “wild livebearer” and think to yourself, “not much color, maybe some cool markings, and just another livebearer”. Well, the Mexican Molly does not fit that description! One day I was sitting in the fishroom in the late afternoon, and the sun was streaming in, hitting the 40-gallon tank with the Mexicana and I quickly wrote this description down before I forgot any detail:

The bright orange is the first thing you notice, it is bordered by a thin deep black line on the edge. The other side is a broad black band which lessens in darkness and increases in iridescence as it crosses the caudal peduncle. This continues ever more subtle blue and iridescent through the body as the sun intensifies the colors. A nice golden yellow hue from the tip of the mouth thru the belly region. The dorsal shares some of the same subtle blue and iridescence as the body.

They really are a nice molly; voracious non-picky eaters, peaceful, prolific, and nice color! Only down side to them is that they are jumpers. I lost my original male when he jumped out of a tank I didn't think had any holes for him to jump thru. Luckily the female had a number of fry that I was able to save. They were in a tank with other fish that were happily trying to eat the fry as they huddled near the surface trying to hide. And a few week later I noticed the female must have escaped out of that tank too since I could find no trace of her.

The fry all grew nicely, but I didn't see any males, only females which are basically a nice silver/gray color throughout. After almost a year, I had all but given up on them and moved them to a 40-gallon tank of miscellaneous fish. One day I noticed a flash of color swim by—it was a Mexicana male with his nice black and orange markings on his tail! So I looked closer and discovered that I had at least 5 males out of the ten now-adult-sized mollies. Each clearly showed a gonopodium and, over the next few weeks, the color came out on all of them. Not sure if this was a case of changing sex, or slow sexual development, or me just not examining them closely enough. They were happily living with many fish including a breeding pair of the mid-sized and fairly peaceful *Cryptoheros nanoluteus*, a Central American cichlid. All the males have been showing that great color pattern ever since I first noticed it, so I can't image I never noticed it previously.

I was able to successfully find a few fry here and there and remove them to raise them to a larger size, about an inch, and then reintroduced them back into this tank. The cichlids and other inhabitants never bothered the larger fry. To this day, I love sitting and watching this tank. I try to time it just right so that the sun is shining in, but that rarely happens. Even without the sun rays, it is still a nice looking fish, and one I'm glad I didn't totally give up on.



Pair of Mexican Mollies, male on left.



Dominant males (upper photo) are more colorful than less dominant males (lower).

CALENDAR OF COMING EVENTS

March 9	TFCB meeting, 6:30, VFW, Essex Jct, VT
March 10 - 12	NEC 42nd Annual Convention , Rocky Hill, CT
March 10 - 12	Capitol Cichlid Association, Big Fish Deal #5 , Gaithersburg, VA
March 25	NH Aquarium Society auction, Portsmouth, NH
March 26	Jersy Shore Aquarium Society , spring auction, Manasquan, NJ
April 1	TFCB Fish, Frag and Reptile Swap Meet , Holiday Inn, Burlington, VT
April 23	North Jersey Aquarium Society , spring auction, East Brunswick, NJ
April 23	New England Cichlid Assoc. , auction, Windsor Locks, CT
April 28 - 30	Aquatic Gardeners Association Convention , Denver, CO
April 29	Central NY Aquarium Society , annual auction, Syracuse, NY
May 4 - 7	American Livebearers Association Convention , St. Louis, MO
May 12	Brooklyn Aquarium Society , spring auction, Brooklyn, NY
May 21	OVAS , annual auction, Rutland, VT
May 26	American Killifish Association Convention , Northbrook, IL
June 8 - 13	North American Native Fishes Assoc. Convention , Missouri
June 22 - 25	International Betta Congress , Orlando, FL
July 13 - 16	American Cichlid Association Convention , Novi, MI
July 15 - 16	New England Fancy Guppy Assoc. , IFGA show and auction, Lancaster, MA
August 25 - 27	Marine Aquarium Conference of North America , New Orleans, LA
Sept 24	East Coast Cichlids , fall auction, Union, NJ
Nov 3 - 5	Aquatic Experience , Chicago, IL



Dwight Moody's 55 gallon *Fp. gardneri* Innedere set up.
photo by Dwight Moody.

NorthEast Council of Aquarium Societies 42nd Annual Convention



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SOUTHERN NEW ENGLAND KILLIFISH ASSOCIATION!

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