Grand Valley Aquarium Club
Tank Notes
July 2015 - September 2015 Issue 69

Inside this Issue:

GVAC Annual Summer Picnic

Saturday, July 11
11 am - 3 pm

Hager Park
8134 28th Ave
Jenison, MI 49428

GVAC will be furnishing pop/water and sub sandwiches.

Families with last name starting with A thru M please bring a salad/side dish to pass.
Families with last name starting with N thru Z please bring a dessert/treat to pass.

Activities: Collecting in the local stream, GVAC's traditional bring a bag/get a bag fish swap & door Prizes

Please contact Justin Sarns for more information

Photo by Dan Kraker
Outdoor Pond

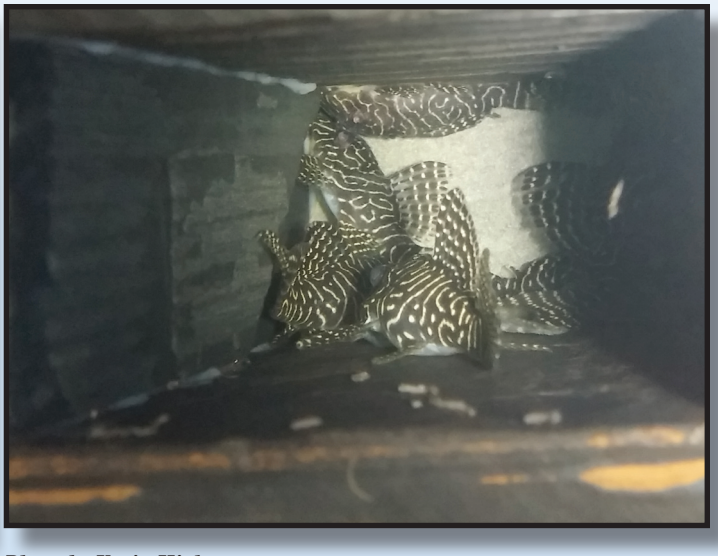

Photo by Kevin Hightower
L260 Queen Arabesque Fry

2015 Board of Directors

President
Mike Monje, exstreamaquatix@gmail.com
Vice President
Justin Sarns, sarnsj@gmail.com
Treasurer
Roger Miller, miller.roger1@att.net
Recording Secretary
Patrick Miller, thriftyfisher@1791.com
Corresponding Secretary
Ken Zeedyk, zekeshouse@wmol.com
Sergeant-at-Arms
Chris Carpenter, christojanet@hotmail.com
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Cyndi Westra , ccyndiw@yahoo.com
Heather Burke, burkehe2@msu.edu
Kory Voodre, kvoodre@gmail.com
Scott Tetzlaff, thefishguy@triton.net
Andrew Kalafut, kalafuta@gvsu.edu
John Schafer, cichlids29@gmail.com

GVAC Fellows

The following is a list of Fellows of the Grand Valley Aquarium Club. These are members who have contributed to making GVAC a successful club. They have held many positions within the club and donated countless hours during those tasks that would not be completed without their hard work and dedication. New Fellows are nominated by current fellows and voted on by the general membership.

Tim Boelema	Ben VanDinther
Finn Nielsen	Jeff Vander Berg
Ken Zeedyk	Patrick Miller

Don't forget to thank them when you see them at meetings or other events.

Committee Chairpersons

Membership, Public Relations, Raffle and Website Administrator:
Ken Zeedyk, zekeshouse@wmol.com
Program Director and Auction Chair:
Justin Sarns, sarnsj@gmail.com
Breeders Award Program (BAP)
Tom Siegfried, tomsiegfried@charter.net
Hort. Award Program (HAP)
Steve Hosteter, fishguy311@yahoo.com
Newsletter Editor and Website Administrator:
Shealyn Sarns, 4tendesign@gmail.com
C.A.R.E.S. Coordinator
Cyndi Westra, ccyndiw@yahoo.com

2015 Club Budget

Income:

Spring and Fall Auction:	$5000.00
Raffles:	$1000.00
Swap Meet:	$520.00
Memberships:	$1000.00
Monthly Auctions:	$1200.00
Total:	**$8720.00**

Expenses:

Monthly room rental:	$1600.00
Large auction room rentals (2):	$880.00
Swap meet room rental:	$280.00
Featured speaker fees:	$1200.00
Rare Fish Night:	$700.00
Christmas party:	$900.00
Summer picnic	$500.00
Insurance:	$432.00
Newsletter:	$500.00
Awards:	$1000.00
Website:	$300.00
PO Box:	$124.00
Misc expenses (forms, stamps, etc):	$304.00
Total:	**$8720.00**

GVAC Mailing Address:
P.O. Box 325
Grandville, MI 49418-0325

Website: www.GVAquariumClub.org
Email: gvaquariumclub@gmail.com

President's Message

Something I rarely touch on in these messages is the state of our club. So here goes a brief State of the Club address; GVAC has paid for our meeting place through 2015. In addition to this we've signed a contract and paid for our meeting place in the Home School Building for 2016, this is our biggest expense and we've met it through the end of 2016! GVAC's auction income is very good, (actually it is on the rise), and this includes our not so mini-auctions held on meeting nights. Membership is also increasing, as is member participation at and in our events. As a club we have sponsored class show awards for fellow clubs, Graduate Student Poster for the ALA, some of the proceeds from our hosting the ALA convention went to the Jim Langhammer Fund, (ALA sponsored), and the Vern Parrish Fund, (ALA sponsored). GVAC continues to have fantastic turnouts at our meetings and events, as well as our fellow club members visiting other clubs for their events. GVAC's finances are very sound, and income is increasing year to year which allows us to sponsor speakers, shop hops, picnics, awards, well you get the idea. We are a Not for Profit, the money the club brings in is spent on the club, and hobby related events/ projects, everyone is a volunteer. Many GVAC members belong to other local and National Clubs, (the ALA, the ACA, etc.); some of our members serve on the boards of these clubs. We are all very fortunate to belong to a club that was founded and built on a firm foundation; we have grown steadily upon this foundation over the years. The State of our Club is very good; it is an honor and privilege to be a part of this organization, Thank you.

I haven't seen as much participation in the bowl shows as I anticipated. I'm personally challenging every club member to pick out at least one species this year and participate in our bowl show program. I know as a club we can make this is as successful as our BAP and HAP programs have been. Please remember to update your C.A.R.E.S. standings with Cyndi Westra. Also, if you're participating in our extended BAP program you must compile these and submit them to our BAP chair on your own.

Please remember GVAC is your club, if there's an event or speaker you'd like to see, please bring it up to board member. Donating your time and energy to the club helps to make us what we are, a fintastic club! Participation in HAP, BAP, C.A.R.E.S., the Bowl Show, writing articles, turning in photos, and participation in the many club events and programs we sponsor, helps both the hobbyist and the club.

Best Fishes,
Mike Monje

Photo by Kevin Hightower
Yoyo Loach Peeking Out

Please support those who support GVAC:

Blue Fish Aquarium
Preuss Pets
Aquarium Services
ADG/Aqua Design Amano USA
Amazonas Magazine
Aquatic Gardeners Association - Karen Randall
Boyd Enterprises
Cichlid Press
CichlidBreeding.com
Doctors Foster & Smith
Florida Aquatic Nurseries
Hagen
HBH Pet Products
Hikari USA
Kordon - Novalek
Marineland
OddballFish.com
Ocean Star International
OmegaSea
Penn Plax
Pet Supplies Plus
Python Products
Repashy Superfoods
San Francisco Bay Brand
Seachem Laboratories, Inc.
SpectraPure
Ted's Fishroom
Tetra
TFH - Tropical Fish Hobbyist
Zoo Med Laboratories, Inc.

Fish Calendar of Events:

July:

11: **GVAC Picnic**
Hager Park, Jenison
11 am - 3 pm

18: **GVAC Board Meeting**
Tim Bolema's Cottage

30-Aug 2: ACA Convention
Springfield, MA
www.acaconvention2015.com/aca.html

August:

8: **GVAC Meeting**
Homeschool Building, Wyoming, 7 PM
Aquascaping Workshop

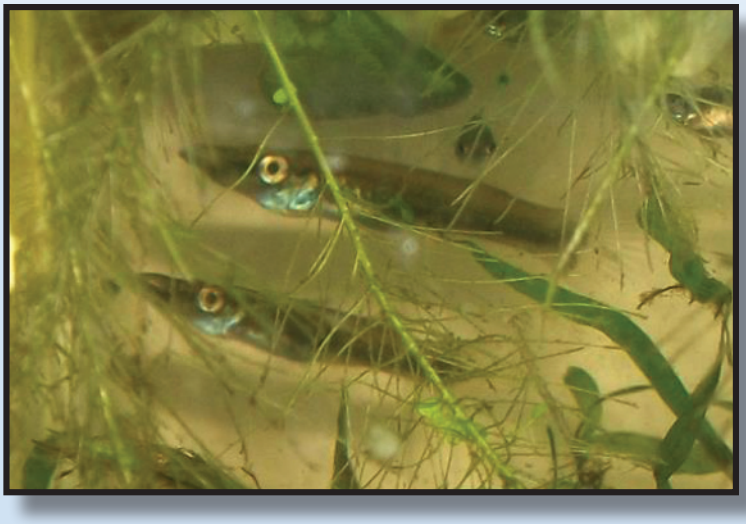
September:

12: **GVAC Meeting**
Homeschool Building, Wyoming, 7 PM
Speaker: Charlie Grimes, Dead Fish Talk

20: Neo-Fish Auction
http://www.neo-fish.com

October:

3: **GVAC Board Meeting**
Justin Sarns' House



Belonesox belizanus: Guppy Gobbler Extraordinaire

Fry Raising

By Heather Burke (Photo by the Author)

I'm not normally one to excel when it comes to fry-raising competitions. I usually get off to a phenomenal start but within a few weeks I get bogged down by other responsibilities and things slip my mind. When that happens, pumping food and water changes into the effort of raising small fish becomes the least of my concerns and so I often accept my defeat in quiet. Last year, however, an entirely different proposition arose for competitive fry raising. Patrick Miller, member of Grand Valley Aquarium Club, had brought in a sizeable batch of Belonesox belizanus to one of the meetings late last year. They were fry at least a couple months old portioned into bags of six each for offering the unique challenge of raising them to fellow club members. It's astonishing enough just to come across that many young belonesox as is, being that the fish is highly predatory. Despite my failed attempts at getting anywhere fast with fry raising competitions in the past, something called to me about this challenge. I somehow felt I had a chance to win if not a slight edge. That edge would lie in my unusually abundant access to healthy feeder fish and chancing upon placing the fish in the appropriately vegetated tank.

When I got my specimens home, I set them up in a 5.5 gallon tank housing four hillstream loaches. The belonesox is a fish that is an especially capable killing machine and does not play well with others. However, I figured they wouldn't have much luck prying the hillstream suckers off the glass even if they wanted to, not to mention they were miniscule monsters upon arrival. Thereafter, I immediately began pumping baby guppies into the tank, as often as I could. The beautiful thing about feeding baby guppies to these fish is that they rarely foul the tank and they are always consumed in the eventual timeline. So I really never worried about putting too much food in the tank. I obtained all of their prey items from the local fish store (Preuss Pets), which is in constant production of livebearing fishes. I had to start off with newborn guppies at first, which I hand-selected at work (the local fish store is also my employer at this time). By October, I had four left and added water lettuce to the tank on a whim.

It was a random mini-auction buy that I had to find a place for, and I could think of no better location for that floating plant. Slowly, the water lettuce grew under the CFL light and the Belonesox immediately took to the cover for lying in wait to ambush their prey. I believe it was the water lettuce that quelled their unsavory desire to consume one another and the four fry quadrupled in size by December. I delighted in feedings as time went on, and would kneel down to watch, film or photograph the belonesox in action as they hungrily lunged for the hapless guppies. They were a true joy to have once I figured I didn't need to stress about them eating one another. The remaining four made it to judging for the January 2015 meeting, all in singular pieces. I wondered if I might not have any competition given the difficulties associated with raising them, but thankfully I was not given a free win but rather an earned one (it always feels better). They were awarded biggest fry in the competition and I breathed a sigh of relief. I had done the deed.

Keeping the Belonesox post-competition was not as simple of a task, however, and I do believe it was a mistake to think I was in the clear. By now the club was saturated with Belonesox for a spell, so nobody really wanted to take them home. I took mine home and sadly found myself back in the pits of a hectic student lifestyle. I threw the fish in a larger tank to grow out further but it seemed it was there that they discovered their cannibalistic tendencies and before I knew it, I had not enough Belonesox to work with. It was a sad end and a different kind of defeat. However, I know if I had the chance again, I could do it. It's the desire ignited in me to succeed that keeps me going, and I desire to succeed the more I realize my capabilities as an aquarist. I will always recall fondly this competition. The resources I had kept my absent-mindedness at bay and still allowed me to have an edge and it was enough to earn a win and another notch in the belt of life experiences. On that note, I encourage others to give this competition a real thorough try. Who knows, maybe you'll find you're unusually good at raising something uncommonly difficult for all the right reasons. You can't know until you try…

THE DWARF NEON BLUE-EYED RAINBOWFISH

By Chase Klinesteker (Photo by the Author)

The Dwarf Neon Blue-eyed Rainbow, Pseudomugil cyanodorsalis, is also known as the Blueback Blue-eye. In March of 2015, Gary Lange talked about Rainbowfish at the GVAC meeting, and I purchased 2 pair of these fish from him. It is a very attractive fish with the male having brown leading edges on the elongated dorsal and anal fins and a reflective neon blue over much of his body. The female has shorter

fins, little color, and a fuller belly. The fish I purchased were only about ½ inch long, but Gary insisted they were breeding adults. I had my reservations about such tiny fish, but he was correct and they were laying eggs within 2 weeks! Their maximum size is slightly over one inch. This is truly a nano fish and I bred them in a 1 ½ gallon tank.

The Neon Blue-eye comes from northern Australia and southern New Guinea coastal waters that vary from almost pure fresh to full saltwater. A comfortable temperature range for them is 72 to 88 degrees. To breed and keep them healthy, Gary recommends using salt to achieve a salinity of 1.017. This is equivalent to 2 cups of sea salt to 5 gallons of water. I used that at first and it works just fine to get them to breed. Later, I cut the amount of salt in half (to aprox. 3 Tablespoons of salt per gallon) and still got good egg production, hatching, and growth of the fry. These fish are sensitive to nitrates, waste, and acid conditions, so water changes are important. They are peaceful surface dwelling fish and good jumpers, so keep them covered. They were fed live baby brine shrimp and small amounts of finely ground flake food at the surface, but they will not eat off the bottom, so regular siphoning is necessary.

The aquarium setup was simple: cover, sponge filter, bare tank bottom, and 2 small mops hanging from the side. At first I found few eggs in the mops, but when I siphoned off the waste on the bottom, I found several eggs. These are very clear and difficult to see and must be candled to locate. Later, I found more eggs in the mops along with those on the bottom. They are hard, quite large, and can be easily picked from a dark mop. The eggs were put in a pan with 1 drop of methylene blue and a slow bubbler. They hatch in 2 weeks, can eat newly hatched brine shrimp right away, grow quickly, and are sexually mature in 3 months. Considering their small size and number of eggs produced, the Dwarf Neon Blue-eye is quite prolific!

2015 BAP January - June

Mitchell Hammer – 18
Clea helena
Neocardina heteropoda
Ancistrus sp bristlenose
Aulonacara hansbaenchi
Hemichromis bimaculatus
Pseudotropheus joanjohnsonae
Melanochromis cyaneorhabdos
Protomelas taeniolatus
Metriaclima estherea
Amatatlania nigrofasciata
Nimbochromis livingstonii
Pseudotropheus socolofi
Copadichromis borleyi
Aulonocara stuartgranti
Amphilophus labiatus
Zoogeneticus tequila
Cyphotilapia frontosa
Aquidens pulcher

Chris Carpenter – 12
Julidochromis regani "kipilli"
Haplochromis thereuterion
Neochromis omniceruleus
Haplochromis sp 44
Tanginicodus irsacae
Lamprologus speciosus
Pelvicachromi sacrimontis
Cryptoheros chetumalensis
Pundamillia sp red flank
Paralabidochromis sauvagei
Neolamprologus gracilis
Lamprologus signatus

Scott Tetzlaff – 9
Xiphophorus kallmani
Micropocelia minima
Poecilia sp coatzacoalcos
Xenotoca melonosoma
Julidochromis marksmithi
Gymnogeophagus sp. Neon Blue
Allotaca catarinae
Hemichromis elongatus
Pseudomugil cyanodorsalis

Ken Zeedyk – 8
Xenotoca variata
Astatotilapia aneacolor
Lepomis marginatus
Polypterus senegalus
Xiphophorus mayae "panzos Guatemala"
Pseudomugil gertrudae
Zoogeneticus purhepechus
Poecilia obscura

Justin Sarns – 7
Placidiochromis sp. Electra Yellow
Limia sp. tiger
Neochromis sp. Entebbe
Xiphophorus evelynae Puebla Platyfish
Copadichromis trewavasae Mloto Likoma
Metraclimia sp. msobo deep
Xiphophorus alvarezi Rio Candleria

Patrick Miller – 5
Xiphophorus milleri
Allotoca catarinae
Poecilia reticulata
Corydoras gossei
Allotoca meeki

Mike Monje – 5
Alunocara Hansbaenschi
Pundamillia sp. blue bar
Neochromis omnicaeruleus
Archocentrus centrachus Flier Cichlid
Labidochromis sp. Zebra Lundo

Darrell Ullisch – 5
Caquetaia spectabilis
Thorichthys sp. Coatzacoalcos
Nannostomus beckfordi
Sewellia sp spotted
Cryptoheros chetumalensis

Dan Kraker – 4
Metriaclima msobo deep
Pseudotropheus sp. Perspicax orange cap
Neocardina heteropoda var. rili
Clea helena

Roger Miller – 3
Moenkhausia pittieri
Julidochromis ornatus
Alfaro cultratus

Adam Persenaire – 3
Protomelas taeniolatus "likoma island"
Protomelas spilinotus
Protomelas taeniolatus "namenji island"

Eric Maxson – 3
Apistogramma panduro
Aquidens patricki
Apistogramma trifasciata

Randy Morris – 3
Poecilia gilla "madre de dios " Costa Rica
Ancistrus sp bristlenose
Poecilia latipinna

Kevin Hightower – 3
Neocardina davidi var. cherry
L340 Hypancistrus pleco
Poecillia wingei

Allan Workman – 2
Neochromis greenwoodi
Ancestries sp

Cyndi Westra – 2
Astatotilapia latisfasciata
Neochromis omnicaeruleus "Makobe II"

Heather Burke – 2
Xiphophorus couchianus
Nanochromis parilius

Dan Ondersma – 2
Xiphophorus maculatus
Amatitlania nigrofasciatus

Steve Hosteter – 1
Xiphophorus couchianus

Chase Kilnesteker - 1
Apistogramma panduro
Pseudomugil cyanodorsalis

Dave Swoveland - 1
Synodontis petricola

BAP By the Numbers
Participants: 21

Total Points Earned: 99

In Appreciation of Our Native Fish

By Ken Zeedyk (Photos by the Author)

Michigan has been blessed with an abundance of water features, from spectacular waterfalls, winding rivers, shallow vegetated lakes and of the course the big lakes themselves. While most people are content to admire the spectacle and beauty on the surface of these waters, I have always been more intrigued by what lies underneath. Common game fish species like the bluegill, bass, and trout are familiar to everyone, but our waterways are also inhabited by a myriad of smaller fish species, some of which compare to tropical reef fishes in their colors. These are the fish that often go unnoticed and unappreciated, but which comprise the cornerstones of the ecological food web and are often keystone species for recognizing water quality. Becoming aware of these species and their needs is often the first step in becoming a better steward of one of most abundant natural resources. Plus they are just really cool fish. Below are some of these species that I have found and observed right here in West Michigan.

The aptly named Rainbow darter, Etheostoma caeruleum, is one of the native Michigan fishes that can rival tropical reef fish in color. These relatives of perch and walleye are much smaller than their gamefish cousins, but what they lack in size they make up for in gaudiness. Male Rainbow darters hold some color throughout the year, but when spawning season comes around in late winter and early spring is when they really show it off. The orange throat intensifies, and the round patches of blue upon the cheeks brighten, almost like someone painted them on with watercolors. The vertical barring down their flanks turns rich green, while their fins containing bands of blues and orange brighten in response to the lengthening days and increasing water temperature. These darters prefer medium to large fast flowing rivers, with areas of cobble and larger rocks. They live under and around these larger rocks, spawning in the gravel in the riffles, and feeding on aquatic insect larvae. Typically their prey needs clean, well oxygenated water, so as long as the water is good, the insects thrive and so do the fish.

The Iowa darter, Etheostoma exile, is another colorful fish that is an inhabitant of our lakes and some streams. Smaller and slimmer than the rainbow darter, the Iowa darter's preferred habitat is in areas of aquatic vegetation, where they hop around among the plants eating aquatic insects and displaying for prospective mates. The males of this species color up in the spring, with vertical barring in orange and blueish green down the length of their body. Their fins also contain these colors and are often held erect in display. A smaller cousin, the Least darter, Etheostoma microperca, is also a resident of vegetated lakes and slower moving streams and often goes unnoticed.

While not as colorful, they are one of our smallest fish and are quite interesting in their own right.

While I have not found Rainbow or Least darters near my home in the Lake Macatawa drainage, I have found Iowa darters near Holland, as well as the common sand dwelling Johnny darter, Etheostoma nigrum, and stream dwelling Blackside darter, Percina maculata. The Blacksides do not have bright coloring, but are striking with the round black blotches on their sides in between a mottled olive colored upper half of the body and cream colored lower half. The distinctive teardrop under the eye is also quite pronounced. This Percina species often swims in mid water, whereas the other species are bottom dwellers, and of all the species of darter I think they look most similar to their larger sport fish cousins.

The Jonny darter is one of the most common fish species seen scooting around over sandy areas in lakes and streams, feeding on small invertebrates. Most of the time they just zip away from you a few feet at a time as you wade through their territory, but I have also seen them dive into the sand when frightened. While they are not very colorful, their spawning habits are pretty interesting. In early spring the males will darken in color, with their heads and barring on their sides becoming dark brown to almost black. The paired dorsal fins also elongate and darken, and they use these to display to the females in front of their chosen spawning area, which is usually a cave under a flat rock. They lay their eggs on the underside of the rock, and the male guards his nest until the eggs hatch in about 10 days. After hatching the tiny fry initially stay near the nest, but eventually disperse and feed on tiny microorganisms.

Michigan waters contain a large number of species typically referred to as minnows. The majority of the 40 or so Cyprinid species in Michigan are small silvery fish, often with a black stripe down their side but there are a number of them that get bright colors, especially in spawning season. Most of the people I run into when I am out searching for these species are quite curious as to why I would go out of my way to catch and photograph "bait", but once they see some colored up males they are usually surprised to find out these fish are native to Michigan.

The Western Blacknose dace, Rhinichthys obtusus, is a common species that is found throughout the state in creeks and streams. They are very active fish that often school together with other species in small holes or among larger rocks where they can get out of the current. In early spring the males develop a deep rust colored stripe down the length of their bodies along with small tubercles, or bumps on their head and fins. Their non-spawning coloring is also rather attractive, with an olive colored dorsal area, a dark stripe down their sides and a cream colored belly. They often have dark mottling across their body.

Spotfin shiners, Cyprinella spilotera, are a larger minnow species found throughout our area and they can grow up to 4 inches in length. They inhabit larger streams and are very active schooling fish. The males get fired up in the summer time, with their sides turning a steely blue color with a striking crosshatched pattern caused by black edged scales. The edges of the fins turn white, and they develop the tubercles on their head as typical of other minnow species. This species is a crevice spawner, depositing eggs in cracks of rocks and tree trucks. I have bred these in a home aquarium, and they are very prolific.

Chrosomus eos is also known as the Northern Redbelly dace and is a striking species of small, clear, cool creeks and streams. While I have yet to find them close to my home in Zeeland, they have been found in other streams in West Michigan. I have also found them in artificially created lakes and ponds further north. These are fine scaled fish with contrasting brown, tan, black and white coloring on their sides. The males develop a bright red stripe on their side, and I have seen others that also have some yellow coloring on them. When seen they are often in schools near overhanging vegetation or clumps of algae, where they lay their eggs.

Michigan has three species of native killifish, one of which is widespread across the state and can be quite numerous in the West Michigan area. Banded killifish, Fundulus diaphanus menona are a small 2 to 4 inch fish that is usually found associated with some vegetation or other cover. However when I observe them in one of the streams that feed into the Macatawa River I often see them in loose schools in shallow water over sand and occasionally rocks. They are easy to spot, since they have vertical barring and a bright "star"on the top of the head, which seems to glow or reflect sunlight. Interestingly the ones in the stream are much larger and have different coloring than ones I find in a small pond a short distance away. The pond dwellers have distinct black vertical bars down the length of their body, while the ones in the river develop wide blueish green vertical bars down their sides. The males in breeding season are quite spectacular.

There are many other species of fish in our lakes and streams. Some we see often and others are seldom or not ever observed. These can be elusive, secretive, or even nocturnal. Some that come to mind are the pirate perch, tadpole madtom, brook silverside, mottled sculpin and stickleback. Try Googling them sometime. Until I joined GVAC I was not aware that many of these species existed, let alone so near to my home where I spent my childhood chasing critters in the local lakes and streams. If you are interested in learning more you can check out a few websites: The North American Native Fishes Association, (www.nanfa.org) is an organization focusing on native fishes from all over the United States and a good reference for uncommon freshwater activities like snorkeling and micro-fishing. They also have links to breeders of native fish who are licensed to sell them. Also see the Michigan DNR website for species collection location information and for checking out the fishing rules and regulations before heading out to observe these fish in their natural habitats.

Rainbow Darter

Johnny Darter

2015 HAP Totals January - May

Kevin Hightower – 23
Vegetative:
Sagittaria subulata
Dwarf sagittaria
Fontinalis antipyretica
Willow Moss
Ludwegia peruensis
Crytocoryne balansae
Cabomba aquatic
Echinodorus urugayensis
Echinodorus muricatus
Cryptocoryne wendtii
Anubias barteri var
wrinkle leaf
Bolbitis asiatica
Bacopa monnierii
Moneywort
Cryptocoryne willisii
Echinodorus Osiris
Melon Sword
Hygrophilia difformis
Wisteri
Heteranthera zosterifolia
star grass
Riccia fluitans
crystalwort
Lemna minor
Duckweed
Rotala rotundifolia
Echinodourus echlueteri
Ammania senegalensis
Ammania gracilis
Althernanthera reineckii
Ludwigea muellerti

Justin Sarns – 6
Vegetative:
Mynophyllum simulans
Echonodurus sp. Red Rubin
Cryptocoryne becketti
lobelia cardnalis
Ludwigia sp 'Red'
Rotala macandra

Roger Miller – 4
Vegetative:
Staurogyne repens
Nuphar japonicum
Spirodela polyrhiza
Flowering:
Nuphar japonica

Steve Hosteter – 3
Vegetative:
Ludwigia sp 'Atlantis'
Lobelia cardinalis
Cryptocoryne becketti

Dan Kraker – 2
Vegetative:
Sagittaria subulata
(dwarf sag)
Versicularia dubyana
(java fern)

Heather Burke – 1
Flowering:
Pistia stratiotes
(water lettuce)

Mike Monje – 1
Flowering:
Annubias minima

Melissa DeHaan – 1
Vegetative:
Spirodela polyrhiza
Giant Duckweed

Patrick Miller – 1
Vegetative:
Limnobium Laeigatum
Frogbit

Dan Ondersma – 1
Vegetative:
Pistia Stratiotes

Photo by Patrick Miller
GVAC Shop Hop 2015

How I grow plants

By Kevin HIghtower

I have been keeping a variety of aquatic plants over the past 5 plus years in my tanks. I started like most everyone with a few vallisneria's and a sword plant. Then it grew into a few different anubias, crypt, and other low maintenance plants as time went on. What drew me to plants is I liked the fact that I had something else besides fish living in the aquarium instead of just plastic plants and other decorations. It is enjoyable to see a new shoot of a plant come up or observing a sword plant grow a new leaf and put on a few inches.

I have not done any experimenting with Co2 but that is on my list to try and in most cases I have either T5 or LED lights. I try to replace the bulbs as recommended but I have to admit that I am not the best at it. I have, however, spent some time experimenting with substrates and fertilizers. For fertilizers, I have used a few different liquids and one of the "pill" types where you put it in the substrate by the plants roots. For myself, I have found that the Flourish Excel has been the most effective. In most cases I dose only partial of what is recommended weekly. I do think it gives the plants some extra nutrients that they cannot get in an aquarium set-up, but I don't believe you have to continuously supply them for most common aquatic plants. After the plants are established in the tank mine seem fine without and continually produce new growth.

Where I have had the most success is with the substrate. I prefer to use the black dirt method. There are many ways to do it but what I do it is to find the plain-Jane black dirt at your hardware store (make sure no chemicals, bark, or other fertilizers are in it). I look for the cheapest black dirt with the plain label. Next, I put about 1.5 - 2 inches in the bottom of the tank and press it down as flat as I can get it. Then you can go whatever way you prefer to put on the top. Most of the time I use plain pea gravel as my next layer, approximately an inch, and recently I have discovered Black Diamond Sand Blasting Sand and put that over top of it for a different look. I have used larger rocks as well, just depends on the look you are going for. Then when you go to plant your plants, make a small hole with your finger a bit bigger than the roots and insert them in the hole, fill back in with the pea gravel or sand. It does cloud up your water for a few minutes but as long as you have good filtration it will clear up shortly. Same goes for if you remove a plant or two down the road.

I have had great success raising any kind of vallisneria, crypt, and sword plants this way among others. It is a simple, quick, and low cost method of raising plants without having to invest in expensive fertilizers and Co2 Set-ups. Maybe add a couple of doses of Flourish to start and you will be well on your way to growing healthy green plants.

C.A.R.E.S. Corner

GVAC C.A.R.E.S. List (as of 5/31/15)

Bitterling, Curt:
Skiffia lermae

Burke, Heather:
Botia sidthimunki
Tilapia synderae
Xiphophorus Couchianus

Carpenter, Chris:
Pelvicachromis sacrimontis
Pytochromis sp. Salmon Hippo Point
Haplochromis thereuterion

Hartman, Pat:
Ameca splendens - Rio Teuchitlan, Mexico
Girardinichthys multiradiatus- SanMiguel Spring
Skiffia multipunctata- Laeo de Camecuaro, Mexico
Allotoca Catarinae
Chapalichthys Peraticus
Xenotaenia Resolanae

Hightower, Kevin:
Hypancistrus sp. L333
Melanotaenia bosemani rainbow
Melanotaenia lacustris
Glossolepis incisus
Pseudotropheus saulosi
Hypancistrus sp. L066
Baryancistrus sp. L081

Hosteter, Steve:
Xiphophorus couchianus

Kalafut, Andrew:
Glossolepis wanamensis
Melanotaenia lacustris
Melanotaenia boesemani

Klinesteker, Chase:
Characadon audax

Kraker, Dan:
Pseudotropheus saulosi
Neochromis omnicaeruleus

Maxson, Eric:
Pseudotropheus saulosi

Monje, Michael:
Xiphophorus couchianus
Zoogoneticus tequila
Placidochromis sp. "Phenochilus Tanzania"

Morris, Randy:
Glossolepis wanamensis
Glossolepis incisus
Melanotaenia lacustris
Melanotaenia boesemani
Zoogoneticus Tequila

Adam Persenaire:
Pseudotropheus saulosi
Xystichromis phytophagus

Jeff Riemersma:
Pseudotropheus Saulosi

Sarns, Justin:
Paralabidiochromis chromogynos "Zue Island"
Platytaeniodus sp. "red tail sheller"
Pseudotropheus saulosi
Ptychromis sp. salmon "Hippo Point"
Pundamilia sp. "blue bar" Hippo Point
Yssichromis sp. "blue tipped"
Astatotilapia aenocolor

John Shafer II:
Cyrtocara Moori
Haplochromis sp. 44
Haplochromis sp. Redfin Piebald
Placidochromis Phenochilus

Voodre, Kory:
Haplochromis sp. "red tailed sheller"
Neochromis greenwoodi
Neochromis omnicaeruleus

Westra, Cyndi:
Neochromis greenwoodi
Xystichromis phytophagus "Christmas Fulu"
Astatotilapia latifasciata
Pseudotropheus saulosi
Neochromis omnicaeruleus makobe II
Cyrtocara moori

**Please contact Cyndi with any corrections*

To view the species list, go to **www.carespreservation.com** and select tab "Priority List". To register a species and receive a blank form or ask questions, email Cyndi, GVAC C.A.R.E.S. Coordinator at **ccyndiw@yahoo.com**

Bowl Show Results

February:
Meeting Cancelled

March:
Livebearers other than Guppies:
1st Nikki Westra
2nd Patrick Miller
3rd Meghan Westra

Killifish:
No Entries

April:
African Cichlids larger than 4"SL:
1st Brian Buskirk
2nd John Schafer

Favorite Fish:
1st Ken Zeedyk
2nd Patrick Miller
3rd John Schafer

May:
Catfish other than sucker-mouth catfish:
1st Patrick Miller
2nd Patrick Miller

Rainbow fish and Blue Eyes:
1st Ken Zeedyk
2nd Brian Buskirk

June:
Guppies:
No Entries

Goldfish/Koi:
No Entries

Upcoming Bowl Shows:

August: Angels, Discus & Uaru
Characins

September: Anabantids other than Bettas
Favorite Fish

October: African Cichlids smaller than 4"SL
Sucker-mouth catfish

November: Central & South American Cichlids smaller than 4"SL
Favorite Fish

Grand Valley Aquarium Club
P.O. Box 325
Grandville, MI 49418
Address correction required

Grand Valley Aquarium Club

Meetings are held on the second Saturday of every month at 7 PM (See inside for detailed schedule).

NEW MEETING LOCATION:
Home School Building Gym
5625 Burlingame Ave SW
Wyoming, MI 49509

Membership Benefits:

GVAC Apparel

Store Discounts at Blue Fish Aquarium*

10% off livestock
20% off bulk food (does not include 5 lb boxes)
Club Nights - Tuesday & Wednesday
20% off livestock

Must show GVAC membership card to receive discounts.

New GVAC Apparel!

New Design along with **New Items** available!

- T-shirts
- Jackets
- Hats
- Coolers

...and more!

Order forms available at club meetings, see Andrew and Heather Kalafut to order.

In This Issue...