Grand Valley Aquarium Club

GVAC Tank Notes

January—March 2014 Issue 63

Upcoming Meetings:

January:	Karen Randall Plants
February:	Rare Fish
March:	Matt Bielski DIY LED Lights
April:	Ted Judy W. A. Cichlids
May:	Mike Tiano Ponds

Inside this issue:

GVAC Swap Meet and Show

January 11

Fish, Plants, Food, Equipment & more

Location: Home School Building 5625 Burlingame SW Wyoming MI 49509

Time: 10am—2pm

Admission: $3 individual, $5 family

Rent a 6ft table, $10ea you do not need to be a club member to sell.

For more information or if you would like to rent a table at this event contact Patrick Miller at pmlife4@att.net

2014 Board of Directors

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Newsletter Editor	Patrick Miller	616-336-5437	pmlife4@att.net
Auction Chair	Justin Sarns		sarnsj@gmail.com
C.A.R.E.S Liaison	Cyndi Westra		ccyndiw@yahoo.com

GVAC Fellows

The following is a list of Fellows of 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 doing those tasks that would not be completed except for their hard work. New Fellows are nominated by current fellows and voted on by the general membership.

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

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

GVAC Mailing address: Grand Valley Aquarium Club
PO BOX 325
Grandville, MI 49418-0325

GVAC Website: www.GrandValleyAquariumClub.org

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Patrick Miller
GVAC Editor
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Grandville, MI 49418-0325

Presidents Corner

Well, 2013 is behind us. It was a *fintastic* year for GVAC, we hosted the ALA convention. The convention was fun and a huge success, (thank you to all who helped make this possible). The club grew in size and participation, not only in HAP & BAP programs, participation in all GVAC events was up last year! If I tried to thank everyone who made this possible, I would certainly, unavoidably miss someone as so many people dedicate time and energy to make GVAC the club that it is. Therefore, the club, and I thank you *all* for all of your efforts! Without each and every one of you we couldn't be *us*!

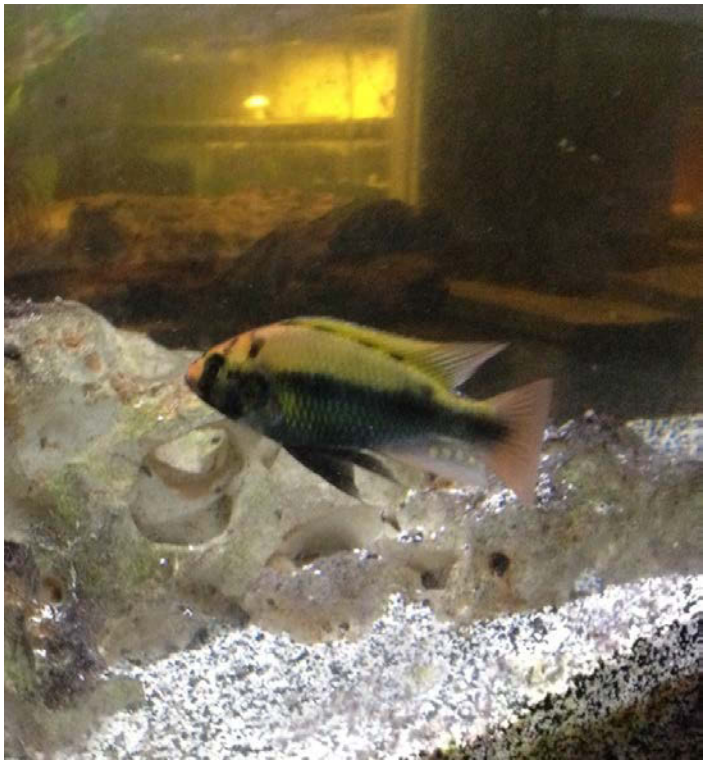
So, welcome 2014 *The Year of the FISH!* GVAC has some great programs for the coming year; we will have our usual Winter Swap, Spring and Fall Auctions, in addition we are trying to put together some special and unusual outings, and a few collecting trips! The club will only continue to grow and thrive if participation and volunteers continue to grow and multiply. We are a club dedicated to the aquarium hobby; every member is a representative of our club. As a club, as an individual member, it is important to support our sister clubs, (attending their auctions, swaps, events, etc). Please remember when we attend these events, when we post online, when we have conversations with fellow hobbyists, we are representing Grand Valley Aquarium Club. As a club, as an individual member, it is also important to support our local resources, retailers, and fellow hobbyists regardless of their experience level.

I am so looking forward to 2014, it promises to be a great year for the club. I encourage each and every one of you, no wait, I challenge each and every one of you to pick one thing: travel to another club for a meeting or auction, attend a fish event that you haven't attended before, try a collecting trip, BAP a fish, HAP a plant, sell at an auction, keep a C.A.R.E.S. species, write an article, submit a picture of your fish / tank, volunteer at an auction or event, pick something related to the club that you've never tried before and try it in 2014!

As a side note; the past few months I've heard a lot of aquarists, (both online and in personal conversations), lamenting that their heaters went out and cooked their tanks. So, I offer this piece of advice; on my larger tanks I place two heaters in the tank. Each heater is half of the recommended size. These heaters will work together, (with decent water movement), to regulate the temperature in the tank. However, individually they are not large enough to cook the entire tank if they malfunction.

I never met a fish I didn't like,

Mike Monje



Haplochromis sp. Ruby Green, photo by Mike Monje

Please support those who support GVAC

Blue Fish Aquarium
Preuss Pets
ADG/Aqua Design Amano USA
Amazonas Magazine
Aquatic Gardeners Ass. - Karen Randall
Aquamaid Supplies
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
Penn Plax
Pet Supplies Plus
Pet Connection
Python Products
Repashy Superfoods
San Francisco Bay Brand
Seachem Laboratories, Inc.
SpectraPure
Ted's Fishroom
Tetra
TFH—Tropical Fish Hobbyist
Wardley—A Hartz Company
Zoo Med Laboratories Inc.

Fish Calendar of Events

January 11 **GVAC Winter Swap**
Home School Building
5625 Burlingame SW Wyoming MI 49509
10am—2pm
$3 individual, $5 for families

January 11 **GVAC Meeting**
Speaker: Karen Randall
Plants

January 18 MCA Winter Auction
Madison Place
876 Horace Brown Dr Madison Heights MI
Registration 9am—Auction 11am
www.michigancichlid.com

January 26 GWAS Winter Auction
Apollo Recreation Center
12521 S. Kostner, Alsip, IL60803
Registration 9:30am—Auction 11am
www.gwasoc.org

February 8 **GVAC Meeting**
Topic: Rare Fish

February 16 GCCA Swap Meet
Best Western Plus
4400 Frontage Road, Hillside IL60162
10am—2pm central time
www.gcca.net

February 22, 23 Killifish Karnival
Niles Inn Conference Center
930 S 11th ST Niles MI
www.michianaaquariumsociety.org

March 1 MCAS Spring Auction
Madison Place
876 Horace Brown Dr Madison Heights MI
Registration 9am—Auction 10:30am
www.motorcityaquariumsociety.com

March 8 **GVAC Meeting**
Topic: Matt Bielski
DIY LED Lights

March 9 SWMAS Spring Auction
Plainwell Community Center
798 E. Bridge ST
Registration 9:30am—Auction 11am
www.swmas.org

March 22 **GVAC Spring Auction**
Home School Building
5625 Burlingame SW Wyoming MI 49509
Registration 9:30am—Auction 11am

April 5 Michiana 'Buck-A-Bag' auction
Concord Mall, 3701 S. main, Elkhart IN
Registration 9am—Auction 11
www.michianaaquariumsociety.org

April 12 **GVAC Meeting**
Speaker: Ted Judy
West African Cichlids

April 27 GCCA Swap Meet
Best Western Plus
4400 Frontage Road, Hillside IL60162
10am—2pm central time
www.gcca.net

May 10 **GVAC Meeting**
Speaker: Mike Tiano
Ponds

May 15-18 ALA Convention
St. Luis MO
www.ALAConvention2014.com

May 23-25 American Killifish Association Convention
Syracuse NY
www.aka.org

June 4-8 NANFA Convention
Western North Carolina
www.nanfa.org

June 14 **GVAC Meeting**
Speaker: Greg Steeves
Lake Victoria CARES

July 12 **GVAC Picnic**
Location: TBA

July 10-13 ACA Convention
Louisville KY
www.aca-convention.com

Why Keep Fish?

By Justin Sarns

All of us in the hobby have faced this question at one point or another. For me it seems to occur when I have a friend or co-worker over for the first time. Each of us has different reasons for why we came into the hobby. For me it arose out of stress. I was in a very unhealthy relationship and I was trying to find something that would help relax me and give me something to call my own. I had always loved fish and a trip to Blue Fish made me realize how many types of fish are out there. I soon had a tank and then a few, and then MTS kicked in (if you don't know what that is you will soon enough). Before I knew it I was running 40 tanks and always had my hands in the water. I found it to be relaxing. It was a way for me to let go of everything after a crazy day of classes, and more recently of teaching. I found nothing more peaceful than lying in my fish room and watching newly hatched fry. It became an outlet for the stress of every day life. In fish keeping I found close friends, good times, and something to keep me out of trouble. So whenever some asks me "why do I keep fish?" I simply tell them because I like fish and fish people!

Cutting Corners / Costs

By Mike Monje

Hobbies cost money. That's it, it's simple. The question is how can I grow my hobby without spending a lot more money? I like to spend my hobby dollars on fish, plants, redecorating a tank, etc. I don't want to give my hobby dollars to the electric company. The question remains how can we accomplish this and still enjoy our aquariums?

The first problem we must overcome is to understand power, specifically electrical power and billing of electrical power. Our electricity is billed in *kilowatt hours,* so what exactly does that mean? I am going to over-simplify this explanation, because we really only care about fish! A kilowatt hour simply defined,

energy = power * time

or

kWh = kW * hours

This means a 40-watt light consumes 0.04 kilowatt hours of energy per hour. Therefore a standard twin bulb florescent shop light uses 0.08 kilowatt hours per hour on a 10 light cycle this is equal to .8 kilowatt hours per day or 24 kilowatt hours per month, (assuming a 30 day month).

Let's compare this to a 48" LED light strip, (an average here is 24watts for a single 48" strip). If we shop around, and do some research on LED's a single strip can easily replace a twin strip florescent shop light, of course this depends on what's going on in our aquarium, and the quality of the LED lighting you select. So now we have, 24-watts or 0.024 kilowatt hours of energy per hour, or 7.2 kilowatt hours per month using the same light cycle and daily calculation as above, 16.8 kilowatt hours per month *saved*. Another bonus here is LED's do not need to be replaced twice a year, (bulb cost).

If we look at canister filters, (only looking at power consumption), the following filters are rated for the same size tank. I am not endorsing one filter over the other; they have individual advantages and disadvantages. I am only asking that you consider the power usage as an added soft cost when evaluating which filter is best for your application. Additionally, filters run 24hours a day times a 30 day month these soft costs add up even faster than with lighting.

Hagen Marina CF80	12watts	0.012 kWh/hour	8.64kWh/month
Eheim 2215	15watts	0.015 kWh/hour	10.8kWh/month
Hydor Pro-350	22watts	0.022 kWh/hour	15.8kWh/month

Running a 48" long tank with a shoplight (twin bulbs), and a Hydor Pro-350 filter uses 39.8 kWh per month, while the same 48" long tank with LED's and a Hagen Marina CF80 uses 15.84 kWh per month. I could run *two* tanks for the price of one in soft costs only! Please note; I am not endorsing any particular product or setup with these examples. These are examples only meant to illustrate a different way of looking at the costs of our hobby.

We can utilize the examples and formula's listed above for calculating all of our costs as related to our hobby. The next time we evaluate our new filter, air pump, (or is it time to consolidate to centralized air system), lighting upgrades, etc. It is just as important to look at the long range financial costs, (soft costs), i.e. power usage, replacement costs, maintenance costs, as it is to look at the immediate costs.

Call Me the Turn and Burn King

By Chris Carpenter

"Turn and Burn" is a term I have heard often in the Aquarium hobby and it is usually said in a negative way. The phrase refers to hobbyists acquiring a new fish, breeding them and getting rid of them to make room for a new species and start the process over. I have done this quite often.

"Why do I keep fish?" This is a question I asked myself many times this past year. The answer I found is not so simple. I keep fish for many reasons. They both challenge and reward me. I have become more intelligent, resourceful and patient. They are my pets. Keeping and breeding fish has given me goals.

I research every new fish I acquire. The research starts the moment I get them and it never ends. I am always searching for good information on a species I have or want. I have learned more about geography, water chemistry, medicine, lighting, electricity and Latin while keeping fish. A couple things in my fish room MacGyver would be proud of.

My goal with almost every fish I get is to breed them. Breeding them tells me I am doing something right. It's a very satisfying feeling to look into an aquarium and find fry swimming around the tank and that feeling is amplified when it's a species I have not bred before. Often times it takes many attempts to get things right. I have several fish that took a year or more before I found what worked.

In my house I have dogs, cats and fish. I consider all of them my pets. I care about them, meet their basic needs and beyond. I have several fish that will never leave. A green spotted puffer named "chewy" has captured my heart and has a forever home. However keeping and breeding fish is my hobby and in order to continue to learn and grow I can't get attached to all of them.

I currently have 40 aquariums running which are home to a lot of fish but there always seem to be more I want. In order to keep more I either have to add more tanks, an option I have picked many times. How do you think I got to 40? It's also an option my wife is not always thrilled about. Another option is to move out a species I have already bred or one I think someone else might appreciate or have better success breeding than I. Sometimes moving fish out is a necessity to keep going forward in the hobby. Being a member of an aquarium club has given me a goal. Someday I wish to have the title "Grand Master Breeder" if that means I also have the title "Turn and Burn King" I will wear it proudly.

Membership Renewals

Don't forget to renew your GVAC membership. All memberships run for the calendar year and need to be renewed in January.

Membership has its privileges, including this newsletter, the deals on page 10 and member only meetings in July and December. Furthermore, only members can participate in the BAP & HAP programs and activities such as Shop Hops.

If you haven't been a member it is easy, fun, and affordable. Individual memberships are $12 per year, family memberships are $18, and student memberships are $10.

We hope to have you join in the fun!

2013 BAP Year End Totals

Chris Carpenter—34
Lamprologus callipterus
Pseudotropheus saulosi
Pseudotropheus williamsi "North Makonde"
Steatocranus tinanti
Tropheops macrophthalmus
Gambusia holbrooki
Xenotoca eiseni 'Tamazula'
Haplochromis sp. 35 Tomato
Julidochromis dickfeldi
Maylandia lanisticola
Metriaclima estherae
Melanotaenia splendida
Corydoras aeneus
Corydoras paleatus
Steatocranus casuarius
Telmatochromis sp. Orange Scribble
Melanochromis joanjohnsonae
Chapalichthys encaustus
Girardinus metallicus
Poecilia butleri
Physa sp.
Aphanius mentos
Characodon lateralis 'Los Berros'
Limia vittata
Herotilapia multispinosa
Betta splendens
Aulonocara baenschi
Labeotropheus trewavasae 'Lindu'
Labidochromis chisumulae
Pundamilia nyererei 'Muanza Gulf'
Tateurndina ocellicauda
Melanoides tuberculata
Amatitlana sp. Honduran Red Point
Tanichthys albonubes

Kory Voodre—27
Geophagus steindachneri
Steatocranus tinanti
Thorichthys sp. "Mixteco Gold"
Gambusia holbrooki
Limia melanogaster
Poecilia butleri
Neocaridina heteropoda Red Rilli
Corydoras paleatus
Corydoras aeneus
Apistogramma macmasteri
Pelvicachromis pulcher
Haplochromis Sp. 35 Tomato
Poecilia wingei
Lepidiolamprologus hecqui
Neolamprologus multifasciatus
Hemichromis guttatus
Characodon lateralis 'Los Berros'
Asolene spixi
Neolamprologus brichardi
Aulonocara jacobfreibergi
Lamprologus ornatipinnis
Cyprichromis leptosoma 'utinta'
Telmatochromis vittatus
Girardinus falcatus
Limia vittata
Herotilapia multispinosa
Maylandia lanisticola

Mike Monje—22
Ancistrus L279
Julidochromis marlieri
Julidochromis ornatus 'chitika'
Heterandria formosa
Xenoophorus captivus
Ilyodon cortesae
Poecilia butleri
Ancistrus sp. 3 Calico
Haplochromis sp Red Tail Sheller
Xiphophorus nezahualcoyotl
Macropodus opercularis
Amatitlania sp. Honduran Red Point
Lamprologus ornatipinnis
Poecilia orri
Limia sp. tiger
Zoogoneticus tequila
Pundamilia nyererei
Steatocranus casuarius
Cnesterodon decemmaculatus
Skiffia multipunctata
Xiphophorus sp. nicolosi
Pethia padamya

Justin Sarns—22
Metriaclima greshakei
Pelvicachromis pulcher
Protomelas spilonotus 'Mara Rocks'
Thoracochromis brauschi 'Lake Fwa'
Xiphophorus helleri
Protomelas taeniolatus
Haplochromis sp. Ruby Green
Aulonocara jacobfreibergi Eureka
Astatotilapia nubile
Cnesterodon decemmaculatus
Poecilia wingei
Otopharynx lithobates
Chromidotilapia guentheri
Paralabidochromis chromogynos
Pseudotropheus saulosi
Protomelas sp. Tangerine Tiger
Clea helena
Limia melanogaster
Ancistrus sp.
Placidochromis phenochilus
Poecilia orri
Zoogoneticus tequila

Tom Siegfried—21
Macropodus opercularis
Labidochromis caeruleus
Nimbochromis venustus
Pelvicachromis pulcher
Pundamilia nyererei 'Mwanza Gulf'
Limia melanogaster
Limia perugiae
Poecilia butleri
Xenotoca eiseni 'Tamazula'
Melanotaenia maccullochi
Corydoras aeneus
Labidochromis chisumulae
Neolamprologus multifasciatus
Pseudotropheus williamsi 'North Makonde'
Tropheus duboisi White Band
Xiphophorus helleri
Julidochromis regani 'Kipili'
Pseudotropheus Blue Dolphin Manda
Chromidotilapia guentheri
Pelvicachromis taeniatus 'Moliwe'
Poecilia wingei

Ken Zeedyk—17
Hemigrammus erythrozonus
Aspidoras spilotus
Corydoras venezuelanus
Rhinogobius rubromaculatus
Poecilia butleri
Danio albolineatus
Elassoma okefenokee
Jordanella floridae
Girardinus metallicus
Girardinus falcatus
Ichthyosaura alpestris apuanus
Xiphophorus evelynae
Fundulus diaphanus menona
Phallichthys quadripunctatus
Xiphophorus alvarezi
Pseudomugil furcatus
Chapalichthys pardalis
Melanotaenia splendida inornata

Roger Miller—13
Mikrogeophagus ramirezi
Girardinus metallicus
Xiphophorus variatus
Iriatherina werneri
Melanotaenia madagascar
Corydoras melini
Apistogramma cacatuoides 'Double Red'
Pterophyllum scalare
Lamprologus caudopunctatus 'Red Fin'
Poecilia velifera
Thorichthys sp. Mixteco Gold
Aphyosemion australe
Pseudomugil cf. paskai

David Gruszecki—11
Metriaclima lombardoi
Poecilia reticulata
Xenotoca eiseni
Xiphophorus helleri
Ancistrus sp.
Amphilophus amarillo
Labeotropheus trewavasae 'lindu'
Pseudotropheus sp. acei
Hemichromis guttatus
Protomelas taeniolatus
Trigonostigma espei

Heather Burke—10
Xenophallus umbratilis
Xiphophorus maculatus
Poecilia reticulata
Haludaria fasciatus
Danio aesculapii
Macropodus opercularis
Danio erythromicron
Tateurndina ocellicauda
Pethia conchonius
Pethia nigrofasciatus

Patrick Miller—10
Pelvicachromis taeniatus 'Moliwe'
Girardinus metallicus
Neoheterandria elegans
Danio roseus
Brachyrhaphis olomina
Nomorhamphus towoetii
Limia dominicensis
Micropoecilia picta
Phallichthys quadripunctatus
Zoogoneticus purhepechus

Jeff VanderBerg—8
Ancistrus sp.
Ctenochromis horei
Mikrogeophagus ramirezi
Pterophyllum scalare
Chapalichthys encaustus
Xenophallus umbratilis
Xenotoca variata
Ampullaria cuprina

Kim Oge—7
Corydoras paleatus
Neolamprologus multifasciatus
Corydoras Panda
Ancistrus sp.
Oryzias woworae
Pelvicachromis pulcher
Xiphophorus maculatus

Cyndi Westra—7
Altolamprologus calvus
Cynotilapia sp. White Top Hara
Cyrtocara moorii
Neolamprologus multifasciatus
Neolamprologus pulcher
Placidochromis phenochilus

Scott Tetzlaff—6
Cryptoheros chetumalensis
Gephyrochromis lawsi
Poecilia orri
Laetacara thayeri
Protomelas spilonotus 'Mara Rocks'
Poecilia petenensis

Travis Henkaline—5
Aulonocara sp. 'Red dragon'
Neolamprologus brichardi
Xiphophorus helleri
Xiphophorus nezahualcoyotl
Pseudotropheus elongatus

Tim Monje—5
Ancistrus sp.
Girardinus falcatus
Procambarus fallax f. virginalis
Clea helena
Macropodus opercularis

Steve Hosteter—4
Labidochromis caeruleus
Ilyodon cortesae
Xenotoca eiseni 'Tamazula'
Xiphophorus maculatus

Melissa Dehann—3
Xenotoca variata
Melanotaenia splendida
Ancistrus Sp.

Phil Wurm—3
Pomacea bridgesii
Skiffia lermae
Xiphophorus nezahualcoyotl

Continued on page 10

Phyllanthus fluitans – The Red Root Floater

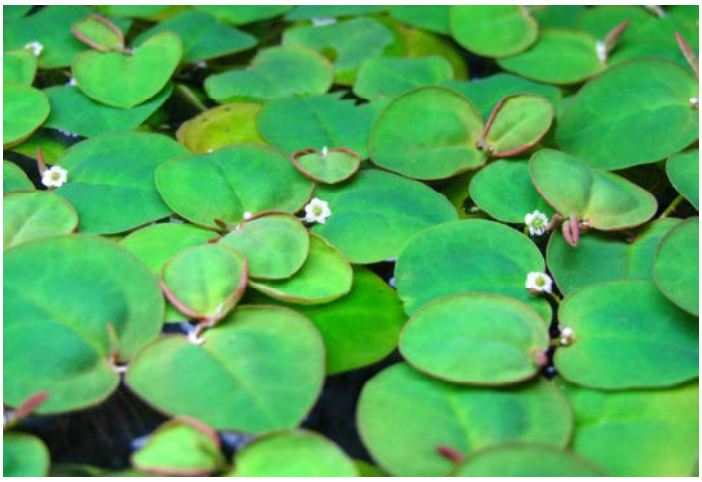
By Roger Miller photo by the author

Phyllanthus fluitans, probably more well known as The Red Root Floater, is (as its common name implies) a floating plant with red roots. Its natural habitat includes Brazil, Peru and other South American countries.

Leaf color ranges from light green to red/brown, are almost round in shape and have a diameter of 1-2cm, approximately ½ - ¾ ". It has been my experience that the brighter the light the more pronounced the red color becomes.

Available information on cultivation on the species states: (1) needs bright light (as it is a very light hungry plant), (2) Soft, slightly acid to neutral water, (3) warm temperatures 25-28^{0}C (77-84^{0}F) & (4) minimal/moderate water movement.

Vegetative propagation is through lateral shoots and it will flower in the aquarium (as I discovered upon returning home from the ALA 2013 convention) under optimal conditions. The flowers are white in color and fairly small at 2mm (less than 1/8") or less in size.



My group of plants are in a 29 gal. aquarium that is lighted 10 hrs./day with a twin tube T5HO fluorescent (6700K & 24 watts each) with water straight from my tap/well (and is considered medium/medium hard) at a temp of 74-74^0 F. Filtration is provided by a canister filter with the discharge placed 3-4" below the surface to minimize water movement at the surface (if there is too much surface water movement this plant will not do well at all). Flourish and Flourish iron are added weekly (mostly) in the recommended amounts and CO_2 is provided 6 hrs./day for other plants in the tank. Note that CO_2 is not necessary for the successful cultivation of this species, as it is a floating plant and gets its CO_2 from the atmosphere. Even though my water conditions are not what is considered optimal for this particular species it does really well in the tank and reproduces fast enough that it will cover the entire surface in a couple of weeks.

As a little side note: Caution is advised when cultivation floating plants such as *Phyllanthus fluitans* in tanks that are being supplemented with CO_2. It looks really cool when the entire surface is covered with these colorful little plants, especially when there are little flowers all over, but with the surface totally covered gas exchange there all but comes to a halt. Consequently, the water will become saturated with CO_2 – the plants love it. Unfortunately, it is very detrimental to aquatic animal life (i.e. fish). Found every fish in this tank expired one morning (fish purchased at the ALA auction) **but** all the damned snails survived (go figure).

Getting back to Phyllanthus fluitans, I think this is a great little plant. It stays much small than water lettuce or frogbit and substantially larger than duckweed and the light greens, red, and red/brown colors will bring some variety to any tank.

Natural Sunlight for Aquarium Plants

By Andrew Kalafut

Currently, almost all of my aquarium plants are grown in two tanks in different rooms. One of these is a 55-gallon, with Ecoxotic Panorama Pro LED lighting, Fluorite substrate, CO2 injection, and daily doses of nutrients. The other is a 30-gallon with Marineland double bright LED lighting, sand substrate, no CO2, and no fertilizers added. According to these specifications, the 55-gallon should clearly be the better tank for growing plants. For some species of plants, this is true, but many seem to grow better in the 30-gallon.

When I initially set up the 30-gallon tank, I did not intend for it to be heavily planted, and was initially surprised plants did well in it. However, I believe I know why I get such good growth despite the low technical specifications. This tank, unlike any of my others, is in a room with a window that has no shades or blinds. Therefore, the tank gets natural sunlight for a few hours each day. While I have not studied this in any scientific manner, I have no other explanation for the growth I observe in the 30-gallon aquarium.

Not all plants seem to benefit from this equally. All of my sword plants and most of my Cryptocoryne grow better in the other aquarium. I think this is because these plants are heavy root feeders, and the sand substrate does not provide many nutrients. Stem plants on the other hand do very well. I have recently attempted to grow *Myriophillum mattogrossense*, *Rotala macranda*, and *Alternanthera reineckii* 'cardinalis' in both tanks. All three of these plants grew best in the tank with the natural sunlight. They all grew faster in this tank, and the latter two grew bigger leaves. Duckweed also grows well in both tanks, although with bigger leaves in the tank with natural light.

There are a few drawbacks however. The natural light seems to benefit plants regardless of position in the tank, but significantly more for plants near the front. Also some of the plants curve towards the front of the tank instead of growing straight upwards. Algae grows faster in this tank as well than in my others. Mainly it is just Cladophora algae which is easily removable, and it mainly grows only on the driftwood.

I would not advocate intentionally setting up a non-planted tank in an area with natural light, as the algae would probably grow out of control. However, in my situation with heavy planting, natural sunlight does not seem to be significantly negatively affecting the aquarium, and even seems to benefit the stem plants.

2013 HAP Year End Totals

Justin Sarns
Vegetative
Anubias coffeefolia
Aponogeton ulvaceus
Cabomba pulcherrima
Cryptocoryne usteriana
Cryptocoryne wendtii 'red'
Hygrophila corymbosa
Hygro polysperma sp. Vesuvius
Ludwigia repens
Microsorum pteropus
Rotala magenta
Shinnersia rivularis
Vallisneria Americana
Myriophyllum mattogrossene
Ammannia gracilis
Potamogeton gayi
Echinodorus xingu
Didiplis diandra
Pogostemon erectus
Anubias nana
Cryptocoryne Moehlmannii
Sagittaria subulata
Cryptocoryne balansae
Alternanthera reineckii 'Cardnalis'
Polygonum sp. Kawagoeanum
Bacopa monnieri
Rotala indica
Rotala sp. Type Two
Ceratopteris thalictroides
Rotala sp. Vietnam
Micranthemum umbrosum
Ludwigia palustris
Blyxa japonica
Flowering
Anubias coffeefolia
Aponogeton ulvaceus
Echinodorus sp. Ozelet

Roger Miller
Vegetative
Cryptocoryne albida
Echinodorus 'Tanzende Feverfeder'
Blyxa aubertii
Blyxa japonica
Hydrocotyle sibthorpioides
Lysimachia nummularia
Rotala sp. Bangladesh
Salvinia oblongifolia
Nesaea pedicellata
Nesaea crassicaulis
Salvinia cucullata
Hydrothrix gardneri
Sagittaria platyphylla
Cryptocoryne parva
Ammannia senegalensis
Flowering
Alternanthera reineckii 'Cardinalis'
Blyxa aubertii
Cyperus helferi
Phyllanthus fluitans
Polygonum kawagoeanum
Echinodorus sp. Tanzende Feuer-feder
Bacopa monnieri
Sexual
Persicaria kawagoeanum

Mike Monje
Vegetative
Limnobium spongia
Hygrophila pinnatifida
Shinnersia rivularis
Ranunculus inundates
Nymphoides sp. Taiwan
Persicaria sp. Kawagoeanum
Hydrocotyle sibthorpioides
Echinodorus angustifolius
Anubias barteri var. 'Nana'
Flowering
Iris pseudacorus
Houttuynia cordata

Steve Hosteter
Vegetative
Heteranthera zosterifolia
Rotala sp. Bangladesh
Subwassertang
Rotala sp. Vietnam
Lysimachia nummularia
Ludwigia repens
Microsorum pteropus 'Windelov'
Salvinia cucullata
Flowering
Aponogeton crispus

Andrew Kalafut
Vegetative
Cabomba caroliniana
Ceratopteris thalictroides
Echinodorus angustifolia 'Vesuvius'
Echinodorus bleheri
Echinodorus parviflorus 'Tropica'
Myriophyllum mattogrossense
Rotala macrandra
Cabomba pulcherrima
Cabomba furcate
Alternanthera reineckii 'Cardinalis'

Dan Kraker
Vegetative
Vallisneria americana
Anubias barteri 'Nana'
Heteranthera zosterifolia
Flowering
Anubias barteri 'Nana'
Nymphaea odorata
Heteranthera zosterifolia
Iris pseudacorus

David Gruszecki
Vegetative
Aegagropila linnaei
Ceratophyllum demersum

Patrick Miller
Flowering
Sagittarius subulata
Sexual
Nelumbo nucifera

Melissa DeHaan
Vegetative
Vallisneria Americana (synonym gigantean)

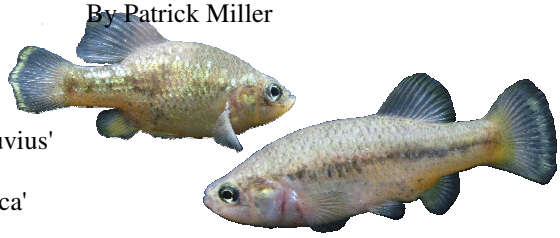
Ben LaClear
Vegetative
Ceratophyllum demersum

HAP By The #s

Total participants	10
Total Propagations	111
Total Species	78
Total Vegetative	91
Total Flowering	18
Total Sexual	2

ALA Brood Record

By Patrick Miller



In October, I was rewarded when my pair of Xenotoca variata, Jeweled Goodeids, dropped a very large batch of fry. I was able to count 86 fry. The pair in question is pictured above, male on the left, female on the right. The female is about 3-1/2" SL, the male is a little smaller. The few weeks before she dropped the record batch she had a hard time swimming and it was commented that she looked bloated, she really was a blimp, I wish I had a photo.

I did not do anything special to get this large drop of fry. It just goes to show that if you treat your fish right you never know what good things can happen.

GVAC 2013 Awards

Once again GVAC has grown and the numbers of people participating in the BAP & HAP programs is witness to that fact. In 2013 we had a record number, 28, people participate in the BAP program with 249 BAP points earned while spawning 149 different species of aquatic animals. The HAP program, while having a smaller number of participants, 10, still managed an impressive 111 propagations which include vegetative, flowering and sexual propagations.

With so many participants the winners of each program had their work cut out for them. Below is what each member did to win.

Aquarist of the Year: **Ken Zeedyk.** It takes a lot of work to run a club like GVAC. Ken has been an invaluable asset to the club. It is easy to see how Ken contributes by sending out meeting notices, welcoming guests to the meeting and serving on the board. However, he also does much more behind the scenes that most members don't have a chance to see. It is for all that Ken has done over the last year that he was chosen to be Aquarist of the Year.

Breeder of the Year: **Chris Carpenter.** With so many people participating in the BAP program there was a lot of competition. Chris reached out from his love for Cichlids to breed, livebearers, catfish, rainbows and others to reach his impressive total of 34.

BAP Rookie of the Year: **Kory Voodre.** For a rookie to give the Breeder of the Year a run for their money, especially when they bred 34 fish, you know they are doing something right. Kory bred an impressive diversity of fish, which included, Cichlids, livebearers and catfish to reach his very impressive number of 27.

Horticulturalist of the Year: **Justin Sarns.** Many aquarists struggle to even get keep plants alive in their tanks. Justin made it look easy in 2013 by turning in 35 propagations including 3 flowering. It will be interesting to see if he can find enough plants to continue the pace in 2014.

HAP Rookie of the Year: **Dan Kraker.** We have a feeling that Dan has a pond or tub outside as his 7 propagations included 4 flowering propagations. It is good to see someone jump in roots first to the program.

Writers Contest: **Roger Miller.** You may have noticed something in every newsletter in 2013, that something was an article from Roger. We hope that he doesn't run out of plants to propagate or fish to breed so that we continue to have a chance to read his interesting articles in 2014.

Additional Awards

In addition to the competitive awards listed above, GVAC has BAP and HAP awards to help members mark milestones in their hobby and encourage participation in the club programs. Each of the following awards requires the participant to turn in an article or photo for publication in the newsletter.

BAP Awards

Expert Breeder Award To reach this level a member must BAP 50 different species.

Chris Carpenter
Roger Miller
Tom Siegfried

BAP Level Slips

Heather Burke, plaque and slip for 10 spawns
David Gruszecki, plaque and slip for 10 spawns
Patrick Miller, slip for 120 spawns
Mike Monje, slip for 60, 70, 80 spawns
Tom Siegfried, slip for 30, 40, 50 spawns
Kory Voodre, plaque and slips for 10, 20, 30 spawns
Ken Zeedyk, slips for 120, 130 spawns
Chris Carpenter, slips for 40, 50, 60 spawns
Tyler Mays, slip for 20 spawns
Roger Miller, slip for 50 spawns
Justin Sarns, slip for 30, 40 spawns
Kenny Valentine, plaque and slip for 10 spawns
Cyndi Westra, slip for 30 spawns

HAP Awards

Horticulturalist Award To reach this level a member must turn in 30 species with at least 5 flowering propagations

Mike Monje

HAP Level Slips

Steve Hosteter, slip for 20 vegetative propagations
Andrew Kalafut, slip for 20 vegetative propagations
Roger Miller, slips for 80, 90 vegetative propagations and slip for 15 flowering propagations
Mike Monje, slip for 30 vegetative propagations and slip for 5 flowering propagations
Justin Sarns, plaque and slips for 10, 20, 30 vegetative propagations

Grand Valley Aquarium Club
PO BOX 325
Grandville MI 49418

Address correction requested

Grand Valley Aquarium Club

Meetings are held on the second Saturday of each month at 7PM

Holliday Inn Express
Great room, just turn right at the big fish tank
6569 Clay Ave SW
Grand Rapids MI

There is no fee and everyone is welcome to attend!

Membership Benefits

GVAC T-Shirts

With Membership Card	$10ea
Without Membership Card	$15ea

Store Discounts

Blue Fish Aquarium*

10% off livestock

20% off bulk food (does not include 5lb boxes)

Club nights Tuesday & Wednesday 20% off livestock.

*Must show GVAC membership card to receive discounts

Continued from page 6

Tim Boelema—2
Brachyrhaphis roswithae
Girardinus uninotatus

Tyler Mays—2
Synodontis petricola
Pterophyllum scalare

Mike Miles—2
Procambarus sp. Marmorkrebs
Limia melanogaster

Kenny Valentine—2
Poecilia reticulata
Limia melanogaster

Andrew Kalafut—2
Xenophallus umbratilis
Glossolepis pseudoincisus

Jeff Riemersma—1
Pelvicachromis pulcher

Dan Kraker—1
Haplochromis sp Red Tail Sheller

Philip Kukulski—1
Herichthys carpintis

BAP by the #s

Number of Participants	28
Number of fish turned in	249
Number of species	159

Congratulations to all who participated this was the largest year for BAP in club history.