

The

DARTER



MAR/APR 2015

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Proper credit must be given to the author and two copies of any publication in which a reprinted article appears must be sent to the exchange address above.



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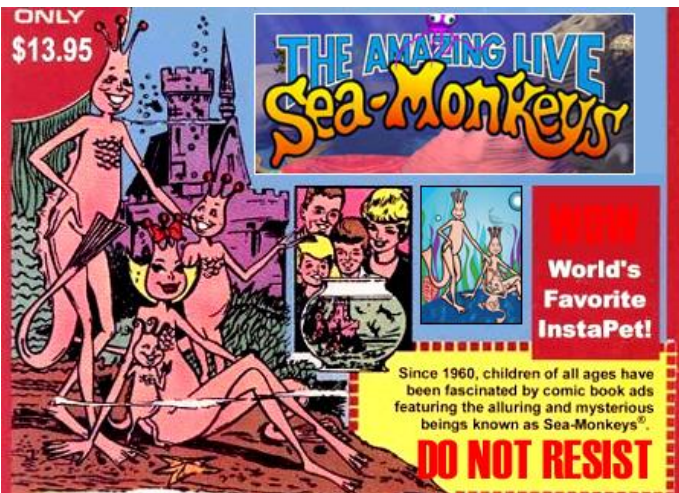


Introducing Petsway

By Mark England

Jenynsia—The One Sided Livebearers

By Mike Hellweg



Brine Shrimp Fact Sheet

Reprinted from February, 2015 issue of The Buckette, the newsletter of the Bucks County Aquarium Society, and originally appearing in the January, 2014 issue of Guppy Tales by the Guppy Association of Greater Cleveland.

Cover photo by Gary Lange
(Blue Ram, *Mikrogeophagus ramirezi*)

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Membership

Annual membership in the Missouri Aquarium Society, Inc. is \$15 and includes an electronic subscription to *The Darter*. A membership with a printed subscription is \$20. *The Darter* is published six times per year. You can join or renew your membership at any meeting, most club events, or by contacting Ron Huck, membership chair, at 314-481-2915.

MASI GEAR!

An expanded line of MASI Logo merchandise is now available from Café Press. Pick from T-shirts, jerseys, caps, tote bags, coffee cups, and more. Go to www.cafepress.com/MissouriAquariumSociety.



FROM THE PRESIDENT

Pat Tosie



WOW!!! Our auction on February 8 was record setting!! We had over 1,000 items, over 100 sellers and almost 200 buyers! Thank you everyone who participated with special thanks to all the workers who helped out and endured this 9 hour event.

“Show-Me the Fish 2015” is just around the corner, May 1 – 3 and it will be a fantastic show weekend. Do you have your show entries getting all ready to show their best?? Kathy, Holly and the Show Committee have been working for months to put on this show, which will include some super speakers and expanded show classes. Participate, this is our premier event of the year—don’t miss it!

This year the MASI Challenge is for the Amazon Research Center for Ornamental Fishes, and in the next month or two I will give a power point presentation showing why we’re raising money for them. Dr. Anthony Inder Mazeroll is sending me information to present, and along with his partner in the research center, Carlos Chuquipiondo, they are looking forward to our fundraising efforts. He may even be able to send some fish for us to auction off! The facility is a tool used by faculty and students from all over the world. They currently have students conducting research at the facility for both their undergraduate and Master degree programs from the Uni-

versidad Nacional de Amazonia Peruanain and Soka University of America. The center will be open to scientists throughout the globe to conduct research on ecology and conservation of local fishes. They hope to help develop sustainable aquaculture practices for local aquarium fishes and share that information with local fish farmers resulting in fewer wild caught fish. In addition, the pathology lab will undertake research on the diseases that are commonly found in the ornamental fish trade in Iquitos.

Election time is approaching and we are always looking for members to get involved. Please think about running for a position on council or an elected office. If

that is not for you, you may want to get involved in one of the many different club activities that keep us going strong. What can you do to be more involved??

Suggestions! Do you have any suggestions on anything we can do or improve? Please feel free to send me a note on anything you may want to see us do or if there is something you think we need to change. This is our club and we want to know what you think! You can send comments and suggestions to: PatTosie@yahoo.com

Keep looking below water....



Mark England

FROM THE EDITOR

email address.

You can let us know your wishes at the next general meeting or by sending me an email to editor@missouriaquariumsociety.com.

Mike Hellweg wrote a great article that won’t be appearing in The Darter. It seems he accidentally emailed it to the editor of TFH magazine instead of to me and TFH liked the article so much, they bought it! Mike’s well known to TFH and across the aquarium world. This isn’t his first article published and won’t be his last. Mike made up for it with a nice piece on the genus of “one-sided” livebearers

that appears in this issue. Thanks, Mike! And we’ll look for your piece in TFH.

MASI and The Darter participate in an exchange program for articles. If you write a general interest article for The Darter, it might appear in other participating aquarium club newsletters around the country.

Most of the newsletters are like The Darter. They have club specific articles as well as those that appeal to a broader range. You’ll find announcements for local shows and auctions, plus news of special interest conventions.

Currently, I receive electronic versions of newsletters from 18 clubs. Some are monthly; some are published irregularly. Some can be downloaded from club web sites, but most cannot. All are in PDF format.

We reprint some articles from various newsletters in The Darter. Gary Lange has suggested we make all the publications available to all our membership.

If you’re interested in receiving emails with other clubs newsletters, send me an email at editor@missouriaquariumsociety.com.

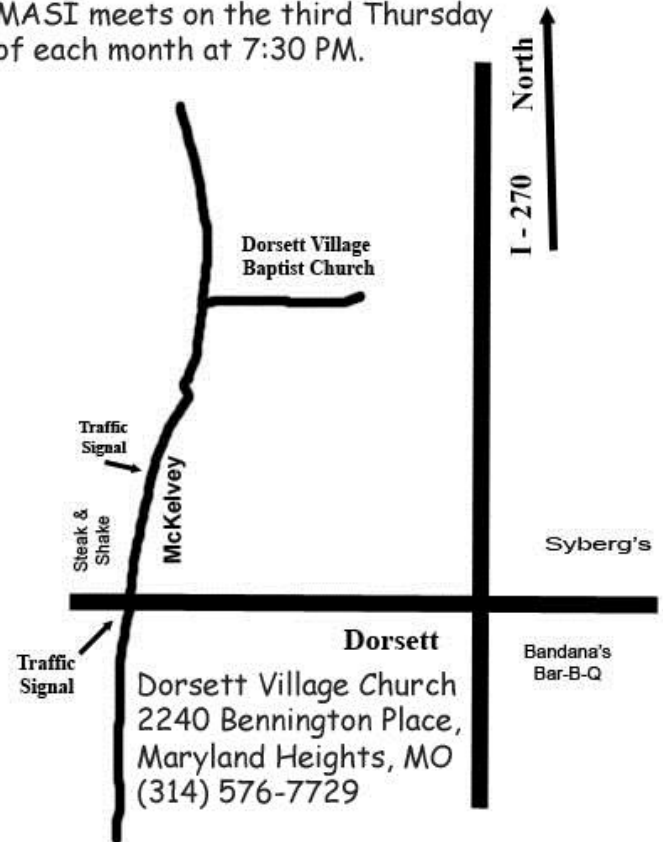
In the near future we will be publishing a membership directory intended to support the exchange of information in our hobby. It will list members’ names, addresses, phone numbers, and email addresses.

If you don’t want to be included, you have the opportunity to opt out. You can choose to not be listed at all or in part, such as omitting your phone number or

MAR 19—ERIC BODROCK “CORY BREEDING MADE EASY!”



MA SI meets on the third Thursday of each month at 7:30 PM.



Covers the set up, conditioning, spawning techniques and triggers to successfully spawn them. Good beginner and advanced hobbyist information included.

Eric Bodrock, 53, is the Owner of All Oddball Aquatics, a tropical fish hatchery and independent online retailer located near Pittsburgh. He and his fiancé, Regina Spotti, maintain about 250 aquariums in their home based hatchery and are working with many species of fish.

Eric has been active in the aquarium hobby since age 10 and has worked in the retail, wholesale distribution, installation, and hatchery aspects of the industry. In addition to his accomplishment of successfully spawning nearly 500 species of freshwater fish, he has published articles, judged dozens of fish shows and has given many presentations abroad and has traveled to aquarium related events in Canada, Germany, Norway, the United Kingdom and all over the USA.

Eric is currently serving on the board of directors of the Greater Pittsburgh Aquarium Society, which he has been a member of for almost 40 years! He considers himself as a “Lifer” in the hobby and continues to promote the aquarium hobby in every possible way...you'll often hear him say: “There’s always room for one more tank!”

He will also be doing a second talk on Friday March 20th at 7:30 at Jost Chemical Co.

“Get Them, Feed Them, Breed Them & Keep Them Alive”

What Bodrock does in his fishrooms; how he prepares for shipping & receiving fish, foods fed and ideas for various diets, some methods for spawning fish and tricks of the trade to help keep fish alive



Electronic Distribution Now Available In Full Color

For those who prefer, the Darter is now available electronically, instead of the paper distribution. To change from paper to electronic distribution, email me at editor@missouriaquariumsociety.com. You will get your Darter sooner and the club will save printing and postage. And, as in 2014, you will save \$5 on your membership.

UPCOMING MEETING SPEAKERS

APR 16—JEREMY BASCH “AN INTRODUCTION TO WOODCATFISH (AUCHENIPTERIDAE) AND THE FIRST SPAWNING REPORT OF THE JAGUAR CATFISH ”

Just in case you missed it Jeremy wrote an article on breeding and raising the Jaguar Catfish *Liosomadoras oncinus*, for *Amazonas* magazine (Vol 3 #6 2014) last year. Bring your issue for an autograph! It's a very shy but really cool and beautiful catfish. He's also going to talk to us about other wood cats like Cen-

tromochlus (formerly in *Tatia*) *perugaie* and other species of *Tatia* that he kept and bred. We will be going to Bandanas BBQ for dinner at 6 pm Call Gary to reserve a spot - Bandanas BBQ 12222 Dorsett Road Maryland Heights, MO 63043 <http://www.bandanasbbq.com>.

Gary Lange



MAY 21—DAVID WHITCRAFT “ADVENTURES IN URUGUAY, A FIRST TIMERS PERSPECTIVE ON COLLECTING”

David Whitcraft has been keeping fish for a brief period, just less than 10 years. He's been president of the Heart of America Aquarium Society (HAAS) for the past 3 years and has bred 25 species of fish. Currently his fishroom has 25 tanks running, mostly stocked with fish from his Uruguay expedition in 2013. Professionally he is an IT Manager for one of the largest health care IT providers in America, a career 18 years in the making.

Gary Lange



Show-Me Fish Speakers

Barbie Fiorentino

"What's Food Got To Do With It" and "Spawning Loricariidae"

Barbie currently keeps just over 2000 gallons in aquariums, for spawning her plecos, and around 3000 gallons at her specialty fresh and saltwater shop in Spokane, WA. She has been spawning freshwater sucker mouthed catfish for over 15 years, and has spawned over 19 species to date. She was president of her local club for several years and is a long time moderator on planetcatfish.com. She enjoys any opportunity to talk about her favorite hobby with others that share the same interest.



Matthew Schauer

"K.I.S.S. Corys; Keep It Stupid Simple: Tips for keeping, breeding & raising some of the most popular aquarium fish"

In 2011 with the help of Frank Falcone he acquired a collection of Corydoras species and launched a website. Matt is currently running near 100 tanks with a focus on Catfish.

Currently Matt is keeping more than 70 species of catfish and has been successful with more than 25 species of Corydoradinae and 16 species of suckermouth.

May 1-3

Friday, May 1—Pizza party. Vendors booths will be open.

Saturday, May 2—

- Speakers
- Banquet featuring Mike Hellweg
- Tank Glow social time following the banquet.

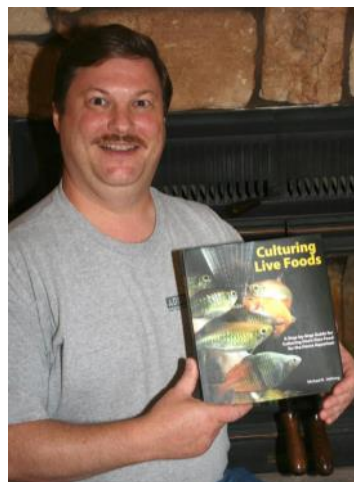
Sunday, May 3— All day, all species auction

More detailed schedules will be available at missouriaquariumsociety.com or on our Facebook page.

Rick Borstein

"Sixty Fishy Tips in Sixty Minutes"

Rick Borstein is the Webmaster of the Greater Chicago Cichlid Association (GCCA), President of the Chicago Livebearer Society (CLS) and President of the Federation of American Aquarium Societies (FAAS). Rick was the Chairman of the successful 2006 American Cichlid Association Convention held in Chicago, IL. Rick has spawned over 200 species of cichlids and is one of only twelve people to hold the title of Master Breeder in the GCCA. Rick's basement fishroom has 36 tanks ranging in size from 5 gallons to 125 gallons. Rick is primarily interested in cichlids and livebearers.



Mike Hellweg

"Fascinating Fishes"

Over the past 40+ years Mike has specialized mainly in miniature fishes, and has successfully spawned over 400 species from 32 families of fish. He is the top ranked breeder and top ranked horticulturist in MASI's BAP and HAP programs. He credits his success to large regular water changes, keeping live plants, and feeding an assortment of live foods daily.

Mike has given over 250 talks to clubs and groups all over the USA and Canada, has documented many of these keeping and spawning successes in more than 250 articles published in hobby publications around the world, and has had two books on live foods published by TFH Publications.

Show-Me Fish 2015 Classes & Rules

There will be 16 classes in the 2015 show .

1. Aquascaping-free entry— Any tank with an entry will also be considered for the Aquascaping award.
2. Best School/Family or Biotope—Entry has a group of one species of fish, a breeding pair/group with fry, or a collection of species that occur together in nature.
3. Novelty/Theme—Tank to be judged on how well a theme is carried out, through the use of fish and decorations. In this class only, fish do not need to be owned for 60 days. The decor cannot be injurious to fish or plants.
4. All Other Fish—This class encompasses any fish that does not fall into any other category. This class is also for any fish whose class has fewer than 3 entrants.
5. Old World Cichlid
6. New World Cichlid

May 1-3

MAJOR AWARDS

Best Fish in Show

Judge's Award

Best Junior (age 16 and under) entry

Reed Thomas Livebearer Award

Ralph Wilhelm Catfish Award

CLASS AWARDS

1st prize \$10 and certificate

2nd prize \$5

3rd prize \$3

Note: There will be separate rules, and prizes for IFGA Standard Guppies, administered by Gateway Guppy Associates in conjunction with the MASI show.

7. Rainbowfish/Killifish
8. Livebearers-Wild Type
9. Livebearers-Fancy Aquarium type
10. Egglayers: Cyprinids: Barbs, Danios, Rasboras, Minnows
11. Characins-Tetras and relatives
12. Anabantoids-except Fancy Betta spenden
13. Betta-Fancy Splendens (the bettas from the fish raising contest will also be in this category with separate judging and prizes)
14. Catfish: Corydoras, Scleromystax and relatives
15. Catfish: All other
16. Photography-print on photo paper and Art and Craft

Photographic Image must be made by the entrant from 2012 forward.

Art/Craft item must be made by the entrant from 2012 forward. Must be ready to display on a table. Nothing will be hung.

2015 MASI SHOW RULES

ENTRIES

Open to all.

Entry fees: \$3 first entry, \$1 each additional entry.

Or all you can enter for \$10

FREE ENTRY:

Aquascaping

Each tank will automatically be judged for Aquascaping.

Tanks with multiple entries:

IT IS UP TO THE ENTRANT TO CLEARLY STATE ON THE

ENTRY FORM WHICH FISH SHOULD BE JUDGED.

Multiple entries in one tank from different classes are ok as long as they are compatible.

As a matter of ethics, all entries must be the property of the entrant for at least 60 days before show. No deformed, diseased, artificially colored (painted, dyed, or injected) or illegal fish may be shown. Illegal fish are listed at the end of these rules.

The judges and show chairmen

reserve the right to pull any entry they deem injured, ill or abused by tank mates.

DISPLAY

All fish are to be entered in flat-sided bowls or tanks a minimum of ½ gallon or larger up to 30 gallons. IF an entrant wants to set up a tank larger than 30 gallons, he must get prior approval from the fish show chairman, AND provide his own stand. Bare tank entries are allowed in all fish classes, though this is not preferred. Consider using gravel or sand, for the comfort of the

fish. We encourage the use of a background for the comfort of the fish and the effectiveness of the display. Consider covering the sides and back of tank with opaque material (black paint, black contact paper, etc.) All entries must be neatly covered to prevent fish jumping out.

There are a limited number of flat sided drum bowls or flat sided "kritter keepers" that can be borrowed if an entrant does not have a bowl. Please contact

(continued)

Raise It Betta! Betta Raising Competition

Don't want to drag you prized discus out to the annual show? Don't want to upset the Synodontis tank to fish out one specimen?

You bet you can still enter the show! It's not too late!

SHOW-ME FISH 2015 wants you to show off your fish raising skills with "Raise it betta!" The betta raising competition.

Kathy Deutsch will take pre-orders on young male Betta splendens. Built into the cost is the ENTRY FEE to show it at the May 2015 annual show.

The pre-paid bettas will be delivered at the March 2015 general meeting.

Take your fish home and raise it betta than anyone else.

Bring it to the annual show on Friday May 1 to be judged-it's already entered!

Prizes to be announced.

Questions? Call or email Kathy Deutsch
kathy@skdeu.com (314) 741-



2015 MASI SHOW RULES (CONTINUED)

the show committee early to reserve one.

Lighted entries are encouraged.

Live plants are encouraged. Filtration and aeration are optional, but strongly recommended for the health of the entry. Air and electrical outlets will be supplied. Guppies, Killies, and Betta splendens may all be entered singly or in pairs in covered bare bowls or tanks of ½ to 1 gallon in size. Naturalistic artificial decorations are allowed in all entries, and a flowerpot or PVC pipe may be used if needed for the comfort of the fish. For Class #10 – Photography – single picture entries must be printed for viewing.

JUDGING

All entries will be sight judged based on appropriate standards for the fish being judged. Decision of Judges and/or Show Chairmen is final. Show Chairmen may disqualify any entry for any reason at any time.

BANNED AND ILLEGAL SPECIES

MO Banned Fish/Aquatic Invertebrate/Plant Species that may not be sold at MASI auctions or displayed in MASI shows:

Fishes

Live fish or viable eggs of Black Carp (*Mylopharyngodon piceus*)

Snakehead fish of the genera *Channa* or *Parachanna* (or the generic synonyms of *Bostrychoides*, *Ophicephalus*, *Ophio-*

cephalus, and *Parophiocephalus*)

Walking Catfish of the family Clariidae

Invertebrates

New Zealand Mudsnail (*Potamopyrgus antipodarum*)

Rusty Crayfish (*Orconectes rusticus*)

Marbled Crayfish (*Procambarus marmoratus*)

Australian Crayfish of the genus *Cherax*

Mitten Crabs of the genus *Eriocheris*

Zebra Mussels (*Dreissena polymorpha*)

Quagga Mussels (*Dreissena rostriformis bugensis*)

Mystery Snails of the genus *Ci-*

pangopaludina.

Special notes for snails:

To avoid problems with various state and federal laws, the ONLY snails that may be sold are the following: common mystery snail (*Pomacea bridgesii*) in all of its various color forms, common ramshorn snails (various genera and species, generally called red, ivory, blue, leopard and brown – specifically NOT the Colombian or giant Ramshorn – *Marisa cornuarietis*), Malaysian trumpet snails (*Melanoides* spp.), "Assassin" Snails (*Anatome* (or *Clea*) *helena*), Nerite snails (various genera and species of the family *Neiritidae*).

Note: Spixi snails (*Asolene spixi*) are no longer allowed.

Missouri Aquarium Society, Inc.

Annual Spring Auction!



May 3, 2015 - Starts at 11:00 AM!

Crowne Plaza Hotel St. Louis Airport
11228 Lone Eagle Dr., St. Louis, MO 63044

Information & Seller Registration:
auction@missouriaquariumsociety.com

We will have both a regular verbal auction and a huge silent auction running throughout the day!

Buyers can find their choice of as many as 600 (or more!) lots of:

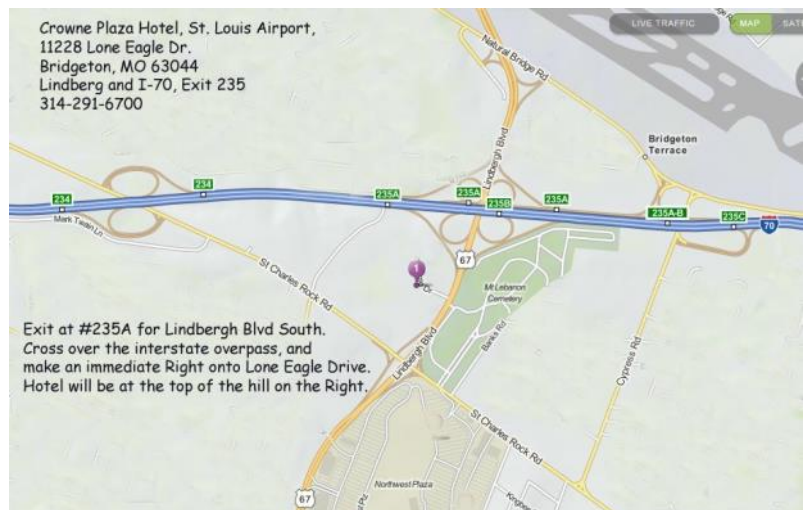
- Locally raised freshwater tropical fish (cichlids, angels, livebearers, community fish, catfish, plecos and **MORE!**),
- Freshwater shrimp,
- Locally raised aquatic amphibians (axolotls, newts and frogs),
- Goldfish,
- Aquatic plants and pond plants,
- Aquarium and Pond Supplies,
- Books and magazines,
- Aquarium and Pond Equipment, Tanks, stands, decorations,
- Live Foods and **MORE!**

Though our sellers are mostly freshwater hobbyists, there are sometimes marine fish/inverts and frags as well.

RAFFLE!

125 gallon tank, top and light with wood cabinet stand will be raffled at 4:00 pm. **MUST be present to win.**

Thanks to Tropical World Pets on Watson Road for supplying this tank.





**TRIP TO
SAILFIN PET SHOP
CHAMPAIGN, IL
SUNDAY, APRIL 19TH
3PM – FISH-TALK AND
LUNCH**

Join us for a field trip to one of the best locally owned fish stores in the area!

CLUB HOPPING By Steve Edie

Check with the individual clubs for more details.

Mar 15	Milwaukee	Milwaukee Aquarium Society	Spring Auction	www.milwaukeeaquariumsociety.com
Mar 20-22	Hartford, CT	Northeast Council of Aquarium Societies	Annual Convention	www.northeastcouncil.org
Mar 22	Hillside, IL	Greater Chicago Cichlid Association	Swap Meet	www.gcca.net
Apr 10-12	Reston, VA	Aquatic Gardeners Association	Annual Convention	www.aquatic-gardeners.org
Apr 19	Indianapolis	Circle City Aquarium Club	Auction	www.circlecityaqclub.org
Apr 19	New Berlin, WI	Milwaukee Aquarium Society	Swap Meet	www.milwaukeeaquariumsociety.com
May 1-3	St Louis	MASI	Annual Show	www.missouriaquariumsociety.com
May 1-3	Lancaster, PA	American Livebearer Association	Annual Convention	www.livebearers.org
May 9	Rogers, AR	Northwest Arkansas Aquarium Society	Spring Auction	nwaas.com
May 15-17	St Louis	Gateway Guppy Associates	IFGA Show	www.gatewayguppyassociates.com
May 22-24	Chicago	Greater Chicago Cichlid Association	Cichlid Classic	www.gcca.net
May 22-24	Detroit	American Killifish Association	Annual Convention	aka.org
Jun 4-7	Broken Bow, OK	North American Native Fish Association	Annual Convention	www.nanfa.org
Jun 25-27	Indianapolis	Midwest Betta Club	Convention	www.bettafish.com
Jul 11	Urbana, IL	Champaign Area Fish Exchange	Summer Auction	www.champaignfish.com
Jul 30-Aug 2	Springfield, MA	American Cichlid Association	Annual Convention	www.cichlid.org
Aug 9	St Louis	MASI	Summer Auction	www.missouriaquariumsociety.com
Oct 24	Peoria, IL	Tri-County Tropical Fish Society	Fall Auction	peoriafishclub.com
Nov 1	St Louis	MASI	Fall Auction	www.missouriaquariumsociety.com
Nov 6-8	Chicago	Aquatic Experience		aquaticexperience.org
Nov 15	Indianapolis	Circle City Aquarium Club	Auction	www.circlecityaqclub.org
Nov 20-22	Cleveland	Ohio Cichlid Association	Extravaganza	www.ohiocichlid.com



Hosted by the Greater Washington Aquatic Plant Association

APRIL 10-12, 2015

Washington, DC • Sheraton Reston Hotel

KEYNOTE SPEAKER GEORGE FARMER

ADDITIONAL LECTURES BY: Phil Edwards *Brightwell Aquatics*
Rachel O'Leary *Invertebrates by Ms. Jinkzd* • Tom Barr *The Barr Report* • Sean Murphy *GWAPA* • Nick Klase *BuildMyLed.com*

Field Trip to the Amazonas Exhibit at the National Zoo,
U.S. Botanical Gardens, and Downtown Washington, DC

Senske vs. Farmer Live Aquascaping Challenge
Vendor Room • Nano Workshop • All-Day Auction

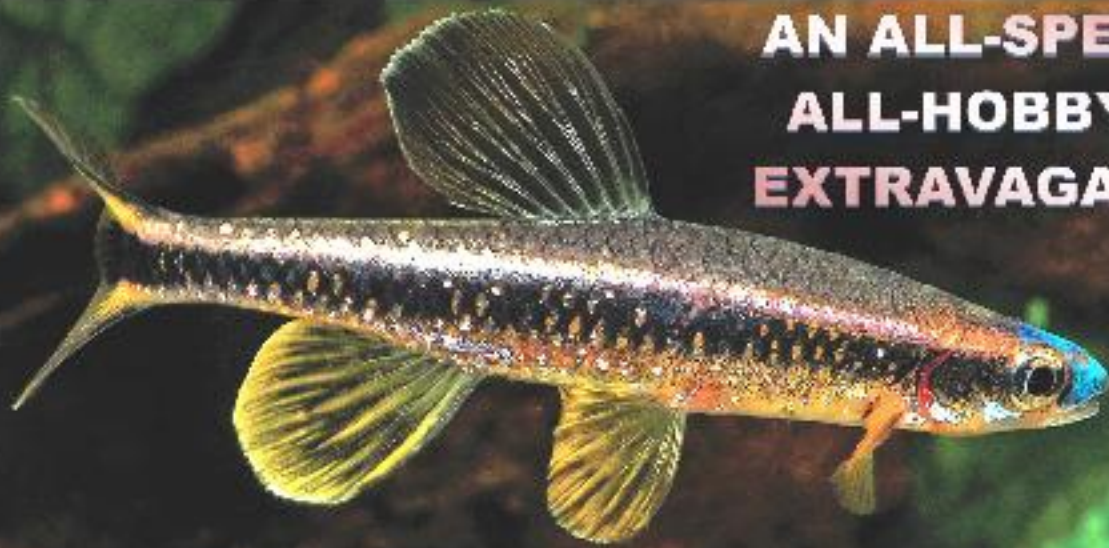
Registration: \$65 for AGAGWAPA Members (\$85 Non-Members)

www.aquatic-gardeners.org/convention.html

pictured below: AGA Contest entry "Taste of Grace" by Cheong Wai Shan Susanna, Hong Kong, China



**AN ALL-SPECIES
ALL-HOBBYIST
EXTRAVAGANZA!**



The Northeast Council of Aquarium Societies
40th Annual Convention
March 20-22, 2015 • Rocky Hill, CT

Pteronotopis welaka, the blue nose shiner, photo © 2011, Tony Terceira

AN EDUCATIONAL AND SOCIAL WEEKEND OPEN TO ALL HOBBYISTS

GIANT ALL-DAY SUNDAY AUCTION!

Hundreds of fish, inverts, plants, dry goods!

WEEKEND-LONG SILENT AUCTIONS!

Benefiting The James J. White Memorial Conservation Fund

FISH SHOW!

Intl Guppy Education and Exhibition Society

ROOM SALES, VENDORS, & MANUFACTURERS!

*Hobbyist-raised and imported fish, inverts,
plants, books, & dry goods!*

SPECIALTY CLUB MEETINGS & SALES TABLES!

HOSPITALITY ROOM! by wetspottropicalfish.com

RAFFLES! PRIZES! FREEBIES!

BUFFET DINNER, BREAKFAST, & BANQUET!

15 TOP PROGRAMS FEATURING:



ARIEL BORNSTEIN: *Collecting Gabon; Uruguay*

PAM CHIN: *Tropheus; Malawi; Rio Negro*

MARK DENARO: *Nano species; Namesake fish*


MIKE HELLWEG: *Cyprinids; Tetras; Halfbeaks*

SHANE LINDER: *Loricariidae; Collect Uganda*

BRIAN PERKINS: *Killifish; Peru; Dart Frogs;*

Hartford
Sheraton South  **Sheraton**
HOTELS & RESORTS

www.northeastcouncil.org

 2015 NEC CONVENTION

ConventionChair@northeastcouncil.org

*Don't miss this opportunity to hear great speakers,
acquire new stock, and meet and learn from
new and old friends around the country!*

COME CELEBRATE OUR RUBY ANNIVERSARY CONVENTION!

From The Fish Room by Ed Millinger

Our average monthly attendance in 2014 was 57. That's a terrific number, especially considering how the summer months usually show a decline. 2015 is off to a great start also.

As a 501c-3 MASI might want to look into escrrip.com. We can sign up and people spending money at local and on-line retailers will have a portion sent to MASI. It is an easy and effective way to raise funds. One of those participating is Schnucks.

I am amazed that we once again had another record auction this past February. Nine hours is a long auction. Those that helped set up and stayed until the end had an even longer day. In years past the February auction was always our shortest. That is because it was the banquet auction for a long time. Each item you brought at 100% donation you received a \$3.00 credit toward a banquet ticket, up to five items per ticket. Therefore, you didn't see many high ticket items. Twice the auction was held in March but most often it was held in February.

One time at the Stratford there was an ice storm that day and MASI had their shortest auction ever - forty five minutes! So I have been at the longest and shortest auctions ever for MASI, I must say I prefer something in the middle.

It was great to hear from Kathy Deutsch and Debbie Sultan as our February speakers. Those of us who are married to women who don't fully appreciate this

great hobby are a little jealous. It was sad to hear just a week later that Debbie and Tom's rescued oscar Hurley had passed on to the big aquarium in the sky.

Before the February meeting Holy Paoni-Wise helped me make a video on proper fish bagging techniques. Charles Harrison will be putting it up on the web site for all of us to view. Holly did a great job, please take the time to watch it,



you will certainly learn something new.



Pat Tosie photo

Auction Chair's Message by Mike Hellweg

Hello all,

Last year's winter auction was our best auction ever. Until this year's winter auction! This auction blew all of our old records - every single one - out of the water! Wow!

Thanks to everyone who helped out. The old saying "many hands

make lighter the work" really came into play. Thank you all for your help. Give yourselves a pat on the back. That's really all I can say. Wow!

Our next auction is coming up quickly on May 3. It will help wrap up our 55th annual Spring Weekend. Volunteers are needed as always. Not only in the

morning at 9:00 am, but throughout the day and especially at the very end, when everyone seems to disappear at once, we can use a hand packing everything up and getting everyone's auction winnings and the club stuff loaded in their cars.

Oh, and don't forget to thank

cal World Pets for helping us out with a 125 gallon tank, top and light and stand again for the Show auction raffle!

I hope we see you all there.

And for now, 'nuff said

Mike

auction@missouriaquariumsociety.com

INTRODUCING



10040 Gravois Rd
(314) 833-5116
Mon-Sat: 9:00am-8:00pm
Sun: 10:00am-6:00pm

Petsway is a new full service 8000 SF pet store now open in St. Louis at 10040 Gravois Rd. about 3 miles east of I-270. Petsway carries freshwater fish, birds, small animals, and reptiles. In addition to foods and supplies for these pets, they carry over 20 brands of dry dog and cat foods plus frozen

raw foods.

You'll like the look. The store is clean, bright, and well organized with custom made pet enclosures for the pets on display.

You'll find most of the common bread and butter community fish and an assortment of

cichlids. You won't find saltwater or many unusual species, but, according to Dan Coleman, the store manager, the aquarium department is still under development and he anticipates there will be more to interest advanced hobbyists in the future.

By Mark England

Dan Coleman, store manager
Mark England photos



INTRODUCING PETSWAY

“We teach The Golden Rule— treat customers they way you would want to be treated.”
Karl Keller, Sr.



The specimens I saw appeared to be well fed and healthy.

Live plants are available. When I visited there were assortments of healthy stem and potted plants available.

Coleman says Petsway is happy

to do special orders for any kind of livestock. Petsway has a long standing relationship with Segrest, a Florida breeder and wholesaler, that carries a wide assortment of unusual species. Some are available only occasionally or seasonally.

Talk to Dan and he'll help find what you want.

Petsway has some of the best looking tank racks I've seen. Custom made by DAS (Dutch Aquatic Systems), they are fabricated entirely of glass and plastics with integrated filter

PETSWAY WELCOMES MASI MEMBERS

\$5.00 OFF

YOUR NEXT PURCHASE OF \$30



One coupon per household.
Cannot be combined with other offers. **Expires 4/19/15**
10040 Gravois Road 314-833-5116

INTRODUCING PETSWAY

systems. The filters use gravel and sponge as biological media with air power to move the water. Very nice stuff.

Petsway is a chain of 5 stores founded in Springfield by Karl Keller, Sr. in 1955. There are 5 stores in Springfield, plus stores in Joplin, Poplar Bluff, and St. Louis. It's surprising to see a new independent store open in these days of big boxes and internet discounters, but Keller believes Petsway can compete on service and knowledge. Petsway provides extensive training for their sales clerks and maintains adequate staff levels so customers can get the advice and instruction they need to be successful. According to Keller, they are more interested in developing



long term customers and reducing the high failure rate of beginning hobbyists than in making one time sales.

Breeders are welcome at Petsway. Young fish need to be 1" to 1.5", depending on the species, to be saleable. Payment terms are negotiable and in line with other aquarium shops.



JENYNYSIA—THE ONE SIDED LIVEBEARERS

By Mike Hellweg

The One Sided Livebearers of the genus *Jenynsia* are rarely encountered in the hobby. They are found over a fairly wide area of South America from southern Bolivia, through northern Argentina, to southern Brazil to Uruguay. Oddly, none are currently reported from Paraguay, which lies in the middle of this area. Logic would dictate that they would also be found there, so look for more on this small genus in the future. For a long time only one species was regarded by most authors as valid, but since hobbyists have begun trekking over less traditional collecting areas in the mountains and outside of the Tropics, more species have been found,

with 8 species being described in just the past 20 years. Currently there are 14 described species in this small genus.

In the literature you will often see them listed as brackish water species. This applies to only one species, *J. lineata*, which is a coastal species from Uruguay and was first collected by Darwin during his famous world voyage in the early to mid 1830s. Obviously species from northern Argentina and Bolivia are found nowhere near brackish water! In fact, most are from cool water streams high in the mountains where they can sometimes be found with ice over the water. Almost all spe-

cies are from areas where the water temperatures can drop to the low 40's Fahrenheit or even lower in the winter time. Some coastal areas can reach near 90° in the summer for short periods, and even the inland species can tolerate warmer water. At least one species, *Jenynsia onca*, is being raised on farms in Florida today, so they can obviously tolerate warmer water, though this certainly isn't needed.

Most of the species in the hobby today are fairly small, topping out at just over two inches in females and about a half inch less in males. *Jenynsia lineata*, the one species that was available in the hobby in the past

Jenynsia lineata



JENYNZIA—THE ONE SIDED LIVEBEARERS

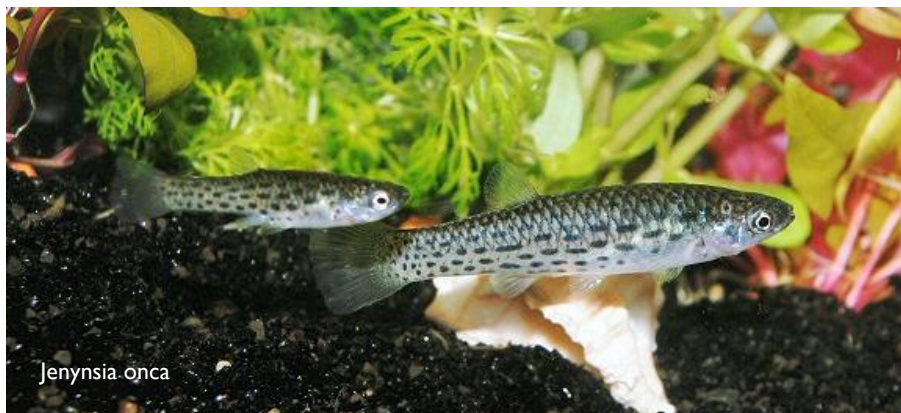
which some “old timers” might remember, is likely the largest species in the genus with females reaching nearly four inches and males about two and a half inches.

They seem to do best in groups of a half dozen or more, so if you find them, try to get more than just a single pair. Single pairs never seem to do as well and often just dwindle away. But a group can quickly establish a colony. I would suggest nothing less than a 30 gallon long for a group of six to eight adults, which will give a good start on a colony and give you room for the colony to grow. Given their tolerance for cooler water, they would likely do well outdoors in ponds or large tubs from May through October. The type of filtration chosen seems to be unimportant, though since they do like water

flow, be sure to turn the air all the way up on a sponge filter or give them a water fall type filter or a canister filter directing the current along the length of the tank. They do not tolerate the buildup of dissolved organics, so be sure to do large, regular water changes. I also add a bit of crushed coral to the filter to maintain the buffering capacity of their water and keep the pH from crashing. No specific number is important. They seem to be tolerant of pH from about 6.5 up to 8.0.

No heater is necessary and since they come from more temperate areas they seem to do better

with fluctuations in the water temperature both throughout the day and around the year. Mine see temperatures from the upper 60's in the winter to the low 80's in the summer, and sometimes temperatures fluctuate by 5 or 6 degrees over the course of the day, especially in the spring and fall when the air conditioning and heating are not running. Adding some marine salt to the water seems to help one species, *J. lineata*, but the other species do not need any salt added to the water.



They are omnivores that are reported to require a large amount of plant matter in their diet. They do a great job of algae control in their aquarium, and seem to do very well on a staple diet of spirulina-based flakes and pellets along with some meaty foods like blackworms, daphnia, brine shrimp and bloodworms added several times a week. They do not seem to be interested in eating even soft leaved plants, but as mentioned before they do seem to like to nibble on algae of all types. Fry will take baby brine shrimp, daphnia and the same flakes and pellets as fed to their parents.

Most species are cryptically colored with varying patterns of spots, lines or blotches. Their most interesting feature is their reproductive strategy and the source of their common name. Males are either right or left-handed, meaning their gonopodium can only swing to the right or left. Females have a genital pore that only opens to the right or left as well. For many years hobby lore held that only right handed males could mate with left-handed females, and vice-versa. After keeping and working with 3 species I've not-

ed that the fish seem to be able to tackle this challenge without a problem, and while it may take a bit of maneuvering, either type of male can mate with either type of female. Males hold the gonopodium straight up alongside their body and approach the female from below, lining up their gonopodium with the particular female's genital opening. After a few attempts, with the cooperation of the female, the males generally have success. They also learn. After a week or so the males will learn how to approach each individual female and mating seems to take less time and effort.

The gestation period lasts about 6 weeks; possibly a bit longer in cooler water. Fry are larger in ratio to female body size than those of other livebearers with which we are more familiar. They are between three eighths inch plus and one half inch in *J. onca* and *J. multidentata*, but can be nearly one inch in *J. lineata*! Females can reportedly drop a dozen to 18 fry, but with my fish I haven't seen anywhere near this many fry. With *J. lineata* so far I've only seen two or three fry each about one inch long from a female about three and three quarters inches long. From that particular female I only had three drops for a total of 8 fry before she passed away. I unknowingly kept them too warm and all of the young wound up being males, so I never had a second chance to see if this size was typical for the species or if it was just my particular female. From

both *J. onca* and *J. multidentata* I've had drops of as many as 9 or 10 fry, but that's been the exception. Most of my females only drop 5 or 6 fry.

If you run across any of the one sided livebearers, don't hesitate to give them a try. There are almost a dozen species that have not yet be kept in the hobby, so there is plenty to learn if you get a chance to work with any of these “new” species. And don't worry about matching up left and right handed specimens. They'll figure it out!

BRINE SHRIMP FACT SHEET

Reprinted from February, 2015 issue of *The Buckette*, the newsletter of the Bucks County Aquarium Society, and originally appearing in the January, 2014 issue of *Guppy Tales* by the Guppy Association of Greater Cleveland.

Here are some interesting data on this fascinating life form.

1. Under optimal conditions, brine shrimp grow from larvae to adult in less than two weeks, increasing in length by a factor of 20 and in biomass by a factor of 500.
2. Artemia can be found in a wide range of water salinities; i.e. from 10 ppt to saturation level. Above 100 ppt no predators or food competitors survive, resulting in a monoculture under natural conditions.
3. There are literally hundreds of locations on the five continents where brine shrimp live and many natural strains of Artemia thrive in coastal salinities as well as in inland salt lakes (rich in chlorine, sulphate, or carbonate salts).
4. Artemia can reproduce in two ways—viviparous or live reproduction (free swimming nauplii) occurring in lower salinity levels or by oviparous reproduction at salinities exceeding 150 ppt (ocean water is about 36 ppt). The Artemia will switch reproductive modes to maximize their survival according to the conditions. During oviparous reproduction the embryo develops into gastrulae at which stage they are encapsulated in a cyst shell and their metabolism is reversibly interrupted. As the salinity drops in the rainy season, the dehydrated cysts will hydrate and the



hatching mechanism will be triggered. With 24-48 hours, a live Artemia nauplii will emerge.

5. Artemia have a high fecundity rate (more than 100 cysts or nauplii every 4 days) and a long lifespan (exceeding 6 months).
6. Proper knowledge of the biological and ecological life cycle and habitat characteristics of brine shrimp reveals the potential to understand and manage existing natural resources of cysts and biomass in operational salt works or salt lakes. The natural distribution of “dispersion” of Artemia can be enhanced by human intervention, i.e. introduction or “transplantation” of a selected Artemia strain into a suitable environment.

7. The quality of the Artemia

produced differs from strain to strain and from location to location as a result of genotypical respectively phenotypical variations. The Artemia largely reflect the food conditions of the high levels of heavy metals and/or chlorinated hydrocarbons and/or deficient in essential fatty acids for marine predators.

8. Artemia are non-selective filter feeders and feed on particulate matter of biological origin as well as on living organisms of the appropriate size range (microscopic algae and bacteria). In fact, due to the absence of predators and food competitors in hypersaline conditions, Artemia often develop into large monocultures, the densities of which are mostly controlled by food limitations.

Storing Baby Brine Shrimp

Holding live baby brine shrimp (BBS) at cold temperatures is a way of preserving the nutritional quality while maintaining a live food. Harvest the BBS with a fine mesh net and rinse with fresh water. Put the yield of BBS from 1 quart of hatching solution into a shallow dish (like a petri dish) with about 1/4 cup of salt water. Place the dish in the refrigerator. The BBS should remain alive for 2-3 days for later feedings.

Advantages of BBS Storage

Cold storage saves time and eliminates the need to maintain daily hatches of brine shrimp cysts. When newly hatched brine shrimp are stored at 4°C, their metabolism is slowed considerably, conserving essential nutrients, lipids, and fatty acids that many fish and invertebrate larvae require. A lower metabolism will also slow growth and maintain a smaller feed particle size for smaller larvae and fry. Later feedings of stored BBS is easy. Simply pour the BBS into a fine mesh net, rinse with fresh water, and feed.

Storing live Adult Brine Shrimp In The Refrigerator

Can you store live adults? Yes! In fact, many pet stores hold live brine shrimp in the refrigerator. They put about one quart of live adult brine shrimp in one gallon of clean salt water. To maximize surface area, a flat shallow container, like a kitty litter tray, is used. Aeration helps, but is not absolutely necessary.

Massive Seattle Octopus Attempts Escape

SEATTLE, WA

The Seattle Aquarium is the new home for two giant octopuses native to Puget Sound. They average 90 lb. and 20' across.

Recently, one of them, named Ink, made a bid to go over the wall and was caught on video by a visitor.

"It was not an escape attempt," aquarium spokesman Tim Kuni-holm insisted. "Octopuses are very inquisitive by nature, and in this case ... Ink is an overachiever."

Sure, buddy, he just went for a walk.

FREE INK! FREE INK! FREE INK!



Fish Bowl—We Get It—Fish Bowl

ALTOONA, IA

I'm not sure where Altoona is, but there's a Bass Pro shop there featuring Uncle Buck's Fishbowl and Grill, a theme restaurant where you can bowl "under the sea."

With 12 lanes and casual dining, you can host a party of up to 50 surrounded by a "nautical" theme. Packages include bowling, shoe rental, pizzas, pop, and themed serveware.

There's a real actual aquarium with actually live fish, too. You can see a variety of native gamefish. plus the state record short-nosed gar (7 lb.)

Sign me up!



HAP QUESTIONS ANSWERED BY MIKE HELLWEG

With all of the newer members participating in the HAP, several questions have come up. You can find the complete rules on the HAP tab on the MASI web page.

Now to the questions:

The first and most obvious being – how do I get points?

You can get points for the same species three times – once for a vegetative reproduction (i.e. doubling, dividing, adventitious plantlets, etc.), basically taking one plant and making it two plants asexually; a second time for a bloom either indoors or outdoors (take a picture and send it to me); and the third time for a seedling raised from that bloom (you have to turn in

the bloom first). You have to donate the vegetative reproduction for credit, but just a picture of the bloom, and you can keep the seedling after you bring it in. Essentially, what you need to do is get the plant to produce another plant, or a stem plant to produce another bunch of stems.

The next most often asked question is – what is an aquatic plant?

An aquatic plant is basically a plant that has to grow in the water at some point during its life cycle in order for it to survive. In other words, it has to be a true aquatic plant. Many shops unfortunately sell plants as “aquarium plants” but these are NOT all TRUE aquatic plants. If

you see a plant being sold as an “aquarium plant” that you recognize as a house plant you’re not going crazy. That IS a houseplant, not a true aquatic plant. Don’t be fooled! Even if a shop sells a plant as an “aquarium plant” this does not automatically qualify it as one you can submit for the HAP. Only true aquatics will get credit.

Another common question is about banned species. We need to be concerned with invasive and banned species. These are plant species that either have already become pests, or that can potentially become pests. These species are not allowed to be possessed in any form (seeds, leaves, stems, roots, fruits, etc.). We do not allow

these species to be submitted. As a further wrinkle, in addition to the Federal Noxious Weed list, Missouri and Illinois have different species on their lists as Illinois has to worry about the affects to the commercial fisheries on Lake Michigan. So they have many more species on the list than we do here in Missouri. If you’re from Illinois, any species on your banned list cannot be turned in. We maintain a current list on the MASI web page under the HAP tab.

I hope that clears up at least some of the more common questions. For the complete rules and a point list, as well as a list of all species turned in so far, check the HAP tab on our web page

www.missouriaquariumsociety.com

PACKING PLANTS BY HOLLY PAONI-WISE

Whenever you are successful with live plants, they multiply. Eventually they will need to be thinned, so what is the best way to package plants? Start with healthy trimmings and thinned plants. Fresh and healthy plants transport the best and hold up the longest. Damaged or yellowing plants don’t hold up as well, or acclimate as easily to a new tank. So start with the best.

Next, give them a quick wash in clean water. Wash off the extras - like duckweed that may be clinging to leaves, or dirt and dust from the substrate. All this really takes is a quick swish

through the clean water. If you have snails, and want to make sure those don’t get passed along, there are several treatments that can be added to the water to help kill any pests. This info is online and could take up lengthy article, so if this is something you’d like to do, “insert” that step in here.

The bag needs to be proportionate to the plant being packaged. It should be about one third bigger, so there is room to work easily, without damaging the plant. Anything larger is really overkill and means there is too much air to moisture and the

plant will dry out faster.

Few plants need water added to the bag. An airtight bag keeps the moisture inside keeping the plants from drying. Adding water just adds extra weight, and steps to the process. It really isn’t needed. So, start with a bag that is in proportion to the plants and water isn’t usually needed.

Next is closing the bag. There are several ways of doing this, a heat sealer, rubber bands, or simply tying a knot. Whichever way you choose, I recommend catching as much air in the bag prior to closing as possible. This gives the plant a cushion of air

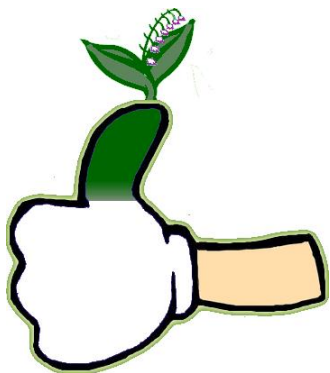
that prevents it from getting smashed, like could happen in a flat airless bag.

Catching air is simply holding the bag open to capacity then grabbing and closing the very top, trapping as much air inside as possible. This can take a bit of practice, but isn’t difficult.

So you just finished packing up some nice healthy homegrown plants. Almost all plants will hold for up to 3 days, without harm, if stored in a cool dark place. Some plants will hold up twice that long. All that’s left is just to label the bag, so the buyer knows what is in the bag!

January/February HAP Report by Mike Hellweg

Aquarist	Species	Common Name	Key	Points	Total	Note
Bruce Mayhew	Anubias barteri nana	Dwarf Anubias	IB	20	225	
	Anubias barteri nana "petite"	Petite Anubias	V	15		
Gary Lange	Bacopa australis	Southern Bacopa	V	20	1780	
	Cabomba caroliniana pulcherrima	Purple Cabomba	V	10		
	Cryptocoryne noritoi		V	15		MASI First!
	Cryptocoryne usteriana		V	15		
	Cryptocoryne affinis haerteliana	Cryptocoryne affinis haerteliana	V	15		
	Echinodoras bleheri compacta	Compact Sword	V	15		
	Echinodoras sp. Kleiner Prinz	Kleiner Prinz Sword	V	15		
	Hygrophila lancea	Lance Leaf Hygro	V	10		MASI First!
	Ludwigia sp. repens x arcuata	Narrow Leaf Ludwigia	V	10		
	Microsorium pteropus Red	Red Leaf Java Fern	V	10		MASI First!
	Microsorium sp. Rooster Tail	Rooster Tail Java fern	V	10		MASI First!
	Microsorium sp. trident	Trident Leaf Java fern	V	10		
	Nesea triflora		V	15		
Evan Wright	Anubias barteri nana petite	Petite Anubias	V	15	375	
	Cryptocoryne wendtii tropica	Cryptocoryne wendtii tropica	V	15		
	Hygrophila corymbosa siamensis	Siamese Giant Hygro	V	5		
	Staurogyne repens		V	20		
	Staurogyne sp. Porto Velho		V	20		MASI First!
	Cabomba caroliniana pulcherrima	Purple Cabomba	IB	15		210
	Hygrophila corymbosa angustifolia	Willow Leaf Hygro	IB	10		
	Echnodoras sp. x Rose	Rose Sword	V	15		3445
	Sagittaria subulata var. pusilla	Sagittaria subulata var. pusilla	V	5		
	Sagittaria subulata var. pusilla	Sagittaria subulata var. pusilla	IB	10		
	Alternanthera reineckii roseafolia	Copperleaf Alternanthera	V	15		1165
	Alternanthera reineckii scarlet	Scarlet Temple Plant	V	15		
	Anubias afzelli frazeri	Frazer's Anubias	V	15		
	Anubias hastifolia		V	15		
	Anubias lanceolata		V	15		
	Anubias sp. Africa		V	15		
	Anubias barteri nana	Dwarf Anubias	V	15		
	Anubias barteri round leaf	Roundleaf Anubias	V	15		
	Anubias congensis	Congo Anubias	V	15		
	Bacopa monnieri	Water Hyssop	V	10		
	Bacopa sp. colorata	Pink Bacopa	V	10		MASI first!
	Bolbitis heteroclita	Asia Trilobe Fern	V	10		
	Cabomba caroliniana pulcherrima	Purple Cabomba	V	10		
	Cardimine lyrata	Chinese Water Ivy	V	10		
	Cladophora aegagropila	Moss Ball	V	5		
	Cryptocoryne undulata		V	15		



Aquarist	Species	Common Name	Key	Points	Total	Note
	<i>Cryptocoryne walkeri lutea</i>	Cryptocoryne walkeri lutea	V	15		
	<i>Cryptocoryne wendtii tropica</i>	Cryptocoryne wendtii tropica	V	15		MASI first!
	<i>Echinodoras bleheri compacta</i>	Compact Sword	V	15		
	<i>Echinodoras sp. Ozelot</i>	Ozelot Sword	V	15		
	<i>Echinodoras sp. Red Flame</i>	Red Flame Sword	V	15		
	<i>Eleocharis acicularis</i>	Dwarf Hairgrass	V	10		
	<i>Hygrophila difformis</i>	Water Wisteria	V	5		
	<i>Isoetes lacustris</i>	Octopus Plant	V	10		
	<i>Lilaeopsis brasiliensis</i>	Micro Sword	V	10		
	<i>Limnobium laevigatum</i>	Brazilian Frogbit	V	5		
	<i>Lobelia cardinalis</i>	Cardinal Flower	V	10		
	<i>Microsorium sp. narrow leaf</i>	Narrow Leaf Java fern	V	10		
	<i>Monosolenium tenerum</i>	Pelia	V	5		
	<i>Myriophyllum tuberculatum</i>	Red Water Milfoil	V	5		
	<i>Nymphaea lotus zenkeri</i>	Tiger Lotus	V	20		
	<i>Nymphoides aquatica</i>	Banana Plant	V	20		
	<i>Ophiopogon japonicus pussilus</i>	Dwarf Mundo Grass	V	10		
	<i>Pogostemon helferi downoi</i>		V	15		
	<i>Sagittaria subulata</i>		V	5		
	<i>Spathiphyllum wallisi</i>	Brazilian Wax Sword	V	15		
	<i>Staurogyne repens</i>		V	20		
	<i>Vallisneria spiralis</i>	Italian Val	V	5		
	<i>Zephyranthes candida</i>	Dwarf Onion Plant	V	20		
	<i>Anubias minima</i>	Least Anubias	V	15		
	<i>Aponogeton ulvaceus</i>		IB	10		
	<i>Bacopa australis</i>	Southern Bacopa	V	20		
	<i>Cabomba caroliniana</i>	Fanwort	V	10		
	<i>Cryptocoryne crispatula balansae</i>	Waffle Leaf Crypt	V	15		
	<i>Cryptocoryne wendtii wendtii</i>	Green Wendtii Crypt	V	15		
	<i>Cyperus helferi</i>		V	10		
	<i>Echinodoras argentinensis</i>	Argentine Sword	V	10		MASI first!
	<i>Echinodoras grisebachii</i>	Amazon Sword	V	15		
	<i>Echinodoras osiris rubra</i>	Red Melon Sword	V	15		
	<i>Echinodoras sp. Indian Red</i>	Indian Red Sword	V	15		
	<i>Echinodoras sp. Rubin</i>	Red Rubin Sword	V	15		
	<i>Hemianthus callitrichoides</i>	Dwarf Baby's Tears	V	15		
	<i>Ludwigia palustris</i>	Red Water Purslane	V	10		
	<i>Ludwigia sp. repens x arcuata</i>	Narrow Leaf Ludwigia	V	10		
	<i>Lysimachia nummularia</i>	Moneywort	V	10		
	<i>Micranthemum micranthemoides</i>	Baby Tears	V	15		
	<i>Microsorium pteropus windelov</i>	Lace Java Fern	V	10		
	<i>Nomaphila stricta</i>	Giant Hygro	V	5		
	<i>Rotala rotundifolia</i>		V	15		
	<i>Vallisneria asiatica biwaensis</i>	Vallisneria asiatica biwaensis	V	5		

Breeders Award Program by Steve Edie

January	Species	Common Name	Points	Bonus	CARES	Total
Charles Harrison	Nannostomus beckfordi	Golden Pencilfish	20			2820
Mike Hellweg	Characodon audax "Guadalupe Aguilera" @		15		15	6294
	Fundulus olivaceus *	Blackspotted Topminnow	10	5		6309
Cory Koch	Puntigrus tetrazona	Tiger Barb	10			3899
Holly Paoni & Kevin Wise	Cryptoheros nanoluteus @		10		10	498
	Girardinus metallicus	Black Chin Livebearer	5			503
	Poecilia latipinna	Green Molly	5			508
	Poecilia obscura		5			513
	Poecilia wingei ^	Blonde Endler's Livebearer	0	1		514
	Pseudosphromenus cupanus	Spiketail Paradisefish	15			529
	Steatocranus casuarius	Buffalohead Cichlid	15			544

February	Species	Common Name	Points	Bonus	CARES	Total
Chuck Bremer	Ilyodon whitei "Rio Huamita" @*	Splitfin Goodeid	15	5	15	252
Mike Huber	Andinoacara rivulatus	Green Terror	10			268
	Astatotilapia latifasciata @	Zebra Obliquidens	10		10	288
	Limia nigrofasciata	Humpback Limia	5			293
	Psammachromis riponius @		10		10	313
Cory Koch	Benitochromis nigrodorsalis #@		0		15	3914
Holly Paoni & Kevin Wise	Ilyodon furcoides		15			559
	Xenotoca eiseni "Rio Compostela" @		15		15	589
Debbie Sultan & Tom Corradini	Aulonocara maylandi #@	Sulfurhead Peacock	0		10	450
	Cheilochromis euchilus		10			460
	Poecilia reticulata	AOC Guppy	5			465
Rick Tinklenberg	Pelvicachromis humilis "Friya" *		15	5		2635
	Xiphophorus continens	El Quince Swordtail	10			2645
Pat Tosie	Astatotilapia calliptera "Blue Chizumala"		10			4640
	Cryptoheros myrnae @		10		10	4660
Derek Walker	Limia perugiae		5			3465
	Sarotherodon caroli "Barombi Mbo" @		10		10	3485
	Stomatepia pindu @		15		15	3515
Evan Wright	Ancistrus sp. "Bristlenose"		10			180

* = First MASI species spawn (5 point bonus)

** = First MASI species and genus spawn (10 point bonus)

*** = First MASI species, genus and family spawn (15 point bonus)

@ = C.A.R.E.S Species at Risk (Double base points)

= Species previously submitted = 0 points, except for C.A.R.E.S. =

base point bonus

^ = Species previously submitted, limited points for additional color varieties

Sources: Cal Academy - <http://research.calacademy.org>

CARES - <http://www.carespreservation.com>

FISHES AS DISHES

PATRICK A. TOSIE, SR.

New England Fish Chowder

Ingredients:

4 ounces meaty salt pork, rind removed and diced into 1/3-inch cubes
 2 tablespoons butter
 2 medium onions, cut into 3/4-inch cubes
 6 to 8 sprigs fresh summer savory or thyme, leaves removed and chopped (1 tablespoon)
 2 dried bay leaves
 2 pounds all-purpose potatoes such as Yukon gold, peeled and sliced 1/3-inch thick
 5 cups Strong Fish Stock, recipe follows
 Kosher or sea salt and freshly ground pepper
 3 pounds skinless haddock or cod fillets, preferably over 1-inch thick, pin bones removed
 1 1/2 cups heavy cream
 2 tablespoons finely chopped Italian parsley leaves
 2 tablespoons finely chopped fresh chives

Directions:

Heat a 4 to 6 quart heavy pot over low heat and add the diced salt pork. Once it has rendered a few tablespoons of fat, increase the heat to medium and cook until the pork is a crisp golden brown. Use a slotted spoon to transfer the cracklings to a small ovenproof dish; reserve.

Add the butter, onions, savory or thyme, and bay leaves to the fat in the pot and cook over medium heat, stirring occasionally with a wooden spoon, until the onions have softened but not browned, about 8 minutes.

Add the potatoes and stock. If the stock doesn't cover the potatoes, add a little water. Turn up the heat and bring to a boil. Cover the pot and boil the potatoes vigorously until they are soft on the outside but still firm in the center, about 10 minutes. If the stock hasn't thickened slightly, smash a few of the potato slices against the side of the pot and cook for 1 to 2 minutes longer.

Reduce the heat to low and season assertively with salt and pepper (you want to almost over season at this point in order to avoid having to stir once the fish is added). Add the fish fillets and cook over a low heat until the fish is almost done, 5 minutes. Remove the pot from the heat and allow the chowder to sit for 10 minutes (the fish will finish cooking during this time).



Gently stir in the cream and taste for salt and pepper. If you are not serving the chowder within the hour, let it cool a bit, then refrigerate (only cover the chowder after it has chilled completely). Otherwise, let it sit for up to an hour at room temperature, allowing the flavors to meld.

When ready to serve, reheat the chowder over a low heat; don't let it boil. Warm the cracklings in a low oven (220 degrees F) for a few minutes.

Use a slotted spoon to mound the chunks of fish, the onions, and potatoes in the center of large soup plates or shallow bowls, ladle the creamy broth around and scatter the cracklings over top. Finish each serving with a sprinkling of chopped parsley and minced chives.

Total Time: 1 hours and 45 minutes (Preparation: 15 minutes, Inactive 1 hour and 10 minutes, Cook: 30 minutes) Yields 6 - 8 servings

FISHES AS DISHES

PATRICK A. TOSIE, SR.

New England Fish Chowder

Strong Fish Stock:

2 tablespoons butter
 2 medium onions, very thinly sliced
 4 stalks celery, very thinly sliced
 2 medium carrots, peeled and very thinly sliced
 2 dried bay leaves
 1/4 cup roughly chopped fresh flat-leaf parsley leaves and stems
 6 to 8 sprigs fresh thyme
 2 tablespoons black peppercorns
 1 large (6 inches long or more) or 2 small (4 inches long or less) fish heads from cod or haddock, split lengthwise, gills removed and rinsed clean of any blood.
 2 1/2 to 3 pounds fish bones from sole, flounder, bass and/or halibut, cut into 2-inch pieces and rinsed clean of any blood
 1/4 cup dry white wine
 Kosher or sea salt

Melt the butter in a heavy 7 to 8-quart stockpot over medium heat. Add the onions, celery, carrots, bay leaves, parsley, thyme, and peppercorns and cook, stirring frequently with a wooden spoon, until the vegetables become very soft without browning, about 8 minutes.

Place the fish head on the vegetables and stack the fish frames evenly on top. Pour in the wine, cover the pot tightly and let the bones sweat until they have turned completely white, 10 to 15 minutes.

Add enough very hot or boiling water (approximately 2 quarts) to just barely cover the bones. Give the mixture a gentle stir and allow the brew to come to a simmer. Simmer for 10 minutes, uncovered, carefully skimming off any white foam that comes to the surface (try to leave the herbs, spices and vegetables in the pot).

Remove the pot from the stove, stir the stock again and allow it to steep undisturbed for 10 minutes. Ladle through a fine-mesh strainer and season lightly with salt. If you are not going to be using the stock within the hour, chill it as quickly as possible.

Cover the stock after it is thoroughly chilled (it will have a light jellied consistency) and keep refrigerated for up to 3 days, or freeze for up to 2 months.

Yield: about 2 quarts

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FISH

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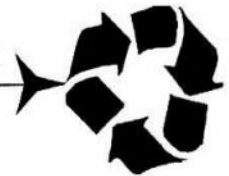
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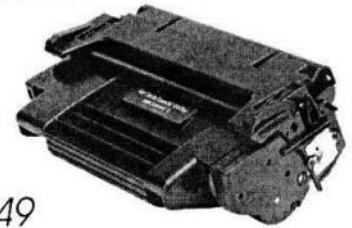


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