



One of the many participants to the 36th Annual NEC Convention. See page 9 for more participants.

1911~2011 100 Years of Educating Aquarists

AQUATICA VOL. XXIV MARCH/APRIL 2011 NO. 3

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Aquatica will exchange publications with all interested societies. If we do not receive your publications for three consecutive months, we will assume you no longer wish to exchange and your club will be removed from our mailing list.

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On occasion, the Brooklyn Aquarium Society uses its mailing list to send notices of interest other than society business to our members. If you do not wish to have your name used in this manner call the Hotline 718 837-4455 and leave a message.

All articles in *Aquatica* are the opinion and experiences of the author or authors, and do not necessarily represent the opinions of the editors or staff of *Aquatica* or the Brooklyn Aquarium Society Inc.

BROOKLYN AQUARIUM SOCIETY CALENDAR OF EVENTS 2011~2012

100 Years of Educating Aquarists ~ 1911 - 2011

MAR 11 <u>Richard Ross ~ Cephalopods: Is There An Octopus In Your Future?</u> ~ Marine fish, aqua-cultured corals, freshwater fish, plants & dry goods auction • Discount books & sales. APR 8 <u>Leslie Harris ~ Life Styles Of The Wet And Spineless</u> ~ Marine fish, aqua-cultured corals, freshwater fish, plants & dry goods auction • Discount books & sales.

MAY 13 <u>Spring Auction</u> ~ Freshwater fish, plants, marine fish, aqua-cultured corals & dry goods auction including a new 55 gallon tank & stand • Discount books & sales • Raffles • Door prize and much more.

JUN 10 <u>**Carol Ross ~ Collecting Fish in Peru</u> ~ Marine fish, aqua-cultured corals, freshwater fish, plants & dry goods auction • Discount books & sales.**</u>

JULY 8 <u>100th Anniversary Party</u> to be held at the New York Aquarium. More information to follow. SEPT 9 Joe Caparetter ~ Unique Corals You Can Keep ~ Marine fish, aqua-cultured corals, freshwater fish, plants & dry goods auction • Discount books & sales.

OCT 14 <u>Fall Giant Auction</u> ~ Freshwater fish, plants, marine fish, aqua-cultured corals & dry goods auction including a new 55 gal. tank & stand • Discount books & sales.

NOV 11 <u>Anthony Stissi ~ Lake Tanganyikan Tropheus Species</u> ~ Marine fish, aqua-cultured corals, freshwater fish, plants & dry goods auction • Discount books & sales.

DEC 9 <u>BAS Holiday Party</u> ~ Members, their families and friends, all you can eat sit-down dinner
Fish Bingo & Prizes • BAS Awards presentations.

2012

JAN 13 TBA (marine)

FEB 10 <u>Peter Warny ~ Visits to Various City & State Aquaria</u> ~ Marine fish, aqua-cultured corals, freshwater fish, plants & dry goods auction

MAR9 <u>Tony Vargas ~ Successful Reef Aquariums from Around the World and HowThey Got There</u> ~ Marine fish, aqua-cultured corals, freshwater fish, plants & dry goods auction

APR 13 TBA (freshwater)

MAY 11 <u>Giant Spring Auction</u> ~ Freshwater fish, plants, marine fish, aqua-cultured corals & dry goods, including a 55 gal. tank & stand

JUN 8 TBA (marine)

SEPT 14 <u>Mike Hellwig ~ Fish Breeding Contest with Ted Judy</u> ~ Marine fish, aqua-cultured corals, freshwater fish, plants & dry goods auction

OCT 12 <u>Giant Fall Auction</u> ~ Freshwater fish, plants, marine fish, aqua-cultured corals & dry goods, including a 55 gal. tank & stand

NOV 9 TBA (marine)

DEC 14 <u>Holiday Party</u> ~ Members, their families and friends, all you can eat sit-down dinner
Fish Bingo & Prizes • BAS Awards presentations.

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Female Chocolate Gourami Image Credit: <u>fishaliciousfish.blogspot.com</u> <u>aquariacentral.com</u> (Nirun Chawla)

VAILLANT'S CHOCOLATE GOURAMI Sphaerichthys vaillanti

Scientific Name: Sphaerichthys vaillanti Common Names: Vaillant's Chocolate Gourami Family: Osphronemidae **Category:** Labyrinth, Gouramies Distribution: Asia - Kalimantan River area, Borneo, found in backwater, dark colored Peat bogs and swamps. **Temperature:** 22 – 28°C | (71F - 82F) Water Quality: pH: 4.0 - 6.5, Hardness: 0 - 5 dH Potential Size: 8 cm (3.1") Sexing: The Female has a reddish tinge and intermittent vertical red and greenish black bars. During breeding the Female coloring becomes very intense and much brighter. The Male has much less coloration and is a light to dark brown with a single line of horizontal cream spots through its middle. The male may be mistaken for the Chocolate Gourami, but it is larger. **Temperament:** Peaceful Water Region: Lower to Middle Activity: Diurnal **Diet:** Carnivore

CHOCOLATE GOURAMI

Sphaerichthys vaillanti



Male Chocolate Gourami Image Credit: <u>fishaliciousfish.blogspot.com</u> <u>aquariacentral.com</u> (Nirun Chawla

Care: Likes to be kept in groups of 3 or more. Tank should be at least 20 gallons or larger. Since it originates in Peat Swamps, it requires Black Water with lots of Tannin and low light with plants such as Java Fern, Java Moss and *Anubias Nana* as well as floating plants and driftwood. Use Peat Filtration. This fish is susceptible to parasites, so the water quality is very important.

Breeding: Difficult to breed. Mouth brooder, the Male carries the eggs in his mouth while the female stands guard. The fish should be fed a good mix of live and frozen foods with occasional Premium Flakes. The tank must be kept clean. If breeding takes place in a tank with no other fish for the female to guard against, the female must be removed after breeding, or she will harass the male. A challenging fish to care for and to breed.

Comments: Inhabits small creeks with abundant wood debris. Very graceful fish, its camouflage appearance is that of a dead leaf, brown body with red stripes and a green sheen. Female is much more colorful than the male.

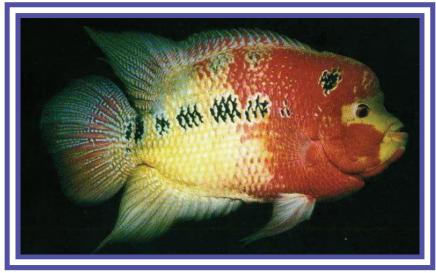
BAP Points: 20



Robert Price BAS

EXTRAORDINARY EXAMPLES OF INTELLIGENCE AND PLAY BEHAVIOR IN CICHLIDS

have been keeping a10-inch long Gold Monkey Flowerhorn for the last year. He has obviously watched me take apart and clean the Aquaclear 70 filter in his tank. Now he has taken to trying to do it himself. Since last December, when he did it the first time, he has learned how to take off each telescoping tube of the intake, grab the charcoal and bio-chip bag and throw it out of the tank or drop it to the bottom of the tank.



Gold Monkey Flowerhorn

He first did this when I was visiting my family over the Christmas Holidays. I came home to find all the fuses out and quite a bit of water in front of his tank. He seems to only do this late at night I have observed, and not for any apparent reason. I believe he may just be doing it when he is bored. I wish **George Barlow** were still alive and teaching biology at the University of California at Berkeley to convey the behavior of this fish. as I share it with you. The next part of the story is even more extraordinaire.

In my bedroom, I have a 29 gallon tank with a single Midas cichlid named Dogface, as he conforms perfectly to the species standard with a large hump and protruding snout. I've had him since he was a pup, and like most Midas cichlids he became an indefatigable digger when he hit five inches. Now at eight inches he has recently demonstrated a panoply of play behaviors without reward, which I believe surpasses the complexity of anything documented for a bony fish.

When I wake up in the morning I have to walk past his tank to get to the bathroom. He is almost always awake before me, and as I pass his tank, he always comes to the upper right corner and dances for 1 to 2 minutes. He shakes his head back and forth vigorously, and paddles his fins in place. Other tame fish do that, however, following that, he routinely cleans the gravel out of his nest or bed. It's made of seven flat rocks, some as big as he is, and meticulously places them to form a bed, not a hiding area, in the middle of the tank. On the 18th of March, the flowerhorn took the

filter apart again. This time I only put back the two extension tubes, and put the other in the dogface's tank. His reaction was immediate and continued on and off for about 65 minutes. He grabbed the blunt end in his mouth and swam as fast as he could across the tank with the pointy end of the filter intake positioned like a sword. He



(which I believe he hates) out of the tank. This qualifies as tool use! Although I believe it was accidental that he succeeded, certainly it appeared intentional. He can easily move the suckers on his heater and he made a space behind it just below the water line and inserted the filter piece in there. Never has he done this, like a goldfish going through a hoop to get a reward. His only reward is the obvious enjoyment he gets from playing with it. I just checked on him at 7:30 PM and he is cleaning sand out of his bed as usual in the evening. The ritual behavior, contrasted with the spontaneous play, defies my explanation,

> but I would put his actions on You Tube if I only knew how to work my camcorder. Maybe he does. He plays a good game of baseball for a fish.

> By the way, he does none of these things for rewards. He is not a gluttonous eater and chews each jumbo cichlid stick and Hikari pellet individually. He does let me know when he

Midas Cichlid (Amphilophus citrinellus)

crashed it into the side of the tank, bit it repeatedly and then dragged it down to the bottom of the tank (it has air stuck in it) and let it go and watched it bob up to the surface, he did this over and over about a dozen times. He does get to watch some television from his tank, but certainly these were his ideas and obviously he enjoyed doing it.

Today, March 29th, he added some new twists. He grabbed the tube again and swung it like a baseball bat at the filter and the airstone. He succeeded in using it to topple the airstone is hungry by coming over to the near top corner without the morning dance. Midas cichlids are one of the direct ancestors of Flowerhorns and I have seen both do complicated feats just to gratify themselves.

Will wonders never cease?

To celebrate our 100th year of educating aquarists we have decided to dip into the rich history of the Society and reprint some of the articles from our early Society publications.

Here's an article from the September 1918 issue of *The Aquarium Bulletin* on the Rosy barb now named *Puntius conchonius*. Keep in mind the name *Barbus conchonius* in no longer valid, but the fish is still a Rosy barb. JT

Jay Baldwin BAS

Illustration H. A. Van Cott BAS

Barbus conchonius, The Magnificent Barb



B arbus conchonius can be seen in the tanks of practically all fanciers as it is a regular old standby. Unassuming, compatible, animated, confiding and magnificently colored this fish is one of the Ne Plus Ultra of aquarium fishes. It is satisfied with any conditions, any old tank, most any kind of food; it can stand temperatures as low as 50° deg., in fact it is a natural born aquarium fish and may therefore be recommended to everyone.

Breeding is very simple, although one must be present when spawn is deposited as the fish is very fond of "caviar" sandwiches. At spawn time, the male fish is of singular beauty. The shining green of the back, which normally turns into a silverish yellow towards the abdomen, is then covered with a transparent red color.

The dark shading in the dorsal fin which is entirely missing in the female, appears as though touched up with India ink and sometimes this is even the case in the pectoral and ventral fins. A distinguishing mark is the dark spot near the root of the tail which is common to both sexes. Very interesting is the courting and flirtations of these fishes, as it greatly resembles that of the goldfish in many respects. Recently, a pair of these fishes that had be separated for a while were reunited in a tank. The at first bashful appearing male fish at once started a ringaround-the-rosie dance around the female who, not at all demure, received the advances of her lover and proceeded to join in the dance. The



pair remained steadily together, the red coloring of the male deepened and, sure enough, the next morning spawn was deposited on all the plants. In furious passion, the male chased the female all over the tank and even when the female wished to rest herself in some corner, she was ejected by the male and forced to spawn.

The eggs were ejected with great force, generally 5 to 10 at a time, and fertilized at once by the male, who hugged very closely to the side of its mate. The parent fish were then removed as they proceeded to devour the eggs. *Barbus* eggs usually hatch in two days and the young grow very rapidly.

To all fanciers that have never kept this fish, advice is hereby given to provide himself with a pair of these. They can be bought at a reasonable price and he or she will surely derive much satisfaction and pleasure from them.



Photos © Sean Evans

EDITOR'S NOTE: Despite what they thought back in 1918, today we do not recommend those maintenances conditions. If you wish them to live well and breed and not to just survive you should follow the guidelines listed bellow.

The fish are egg scatterers and the fish will eat the eggs if given the chance... so don't give them the chance. These fish will usually spawn in the morning, after spawning remove the parent fish.

As with any fish you wish to breed, you should read up on them and understand their needs and the needs of the fry to be successful. **JT**

Common name: Rosy barb Scientific name: Puntius conchonius **Synonyms:** *Barbus conchonius* (no longer valid) Size: Usually around 3" (7.5cm), but reported to grow larger in the wild. **Origin:** Northern India **Tank setup:** Planted tank with plenty of swimming space. **Compatibility:** Keep with other lively community species, may be too boisterous for timid community fish, and there is a risk of fin-nipping. **Temperature:** 18-23°C (64-73°F) Water chemistry: Fairly soft, around neutral (pH 6.5-7.5) Feeding: Omnivorous, most foods accepted. Use flake/granular foods as a staple and supplement with frozen/live foods. Sexing: Males have more red on the body and more distinct black edges on the fins. **Breeding:** Typical egg scatterer, the adults will eat the eggs if not removed. Use two females per male. **Comments:**These fish show their best colors when kept at the cooler end of the tropical temperature range. A long-finned form is available, as well as a so-called "metallic" colors form.



Brooklyn Aquarium Society's 100th Birthday with a Surprise Birthday Cake!

President, Joe Graffagnino, Editor, John Todaro and Exchange Editor, Stu Hershkowitz (not in picture) are presented with a 100th anniversary birthday cake.



Joe puckers up to blow out the candles!



Some of our friends at the NEC Convention

Frank Greco of Frank's Aquarium fame and former member of the BAS. Frank is also on the staff of the NY Aquarium.▼



Ken Menard owner of Kens Fish Food and TFSRI member. ▼

Ken Menard TFSRI Our good friend and former president of Greater City AS
 Joe Ferdenzi and
 Joe G. ham it up for the camera.



▲ **Rit Forcier** president of the ALA. and speaker.



▲ Smiling presidents! Joe Masi, president of the NEC and the Danbury AS poses with Joe G, president of BAS.



▲Here we are from left to right: **Stu Hershkowitz, John Todaro** with **Richard Rego**, owner of South Coast Scientific & Technical Books and member of TFSRI, and **Joe Graffagnino**.



 Clay Jackson, editor of Aqaurium Fish International checking out the book display as Ray Downs a ▶
 member of BAS heads to our booth.
 Nancy Villars from South Central Cichlids looks on in the background.

The one and only **Ray "Kingfish" Lucas** holds court. ▶



▲ The always smilling Mark Soberman was having a great time.



Ray Downs Pepsi Rep

Nancy Villars

South Central-

Cichlids LLC



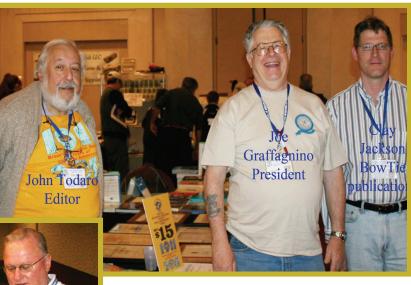
▲ Lee Finley a good friend to all of us

▲ Nancy Villars making a sale of her hand made clay cichlid caves. Steve Hallgring in a moment of reflection before getting back to a busy weekend.



The BAS gang with **Clay Jackson**, editor of *Aquarium Fish International*.

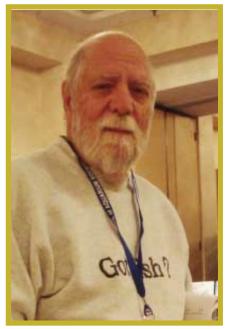
Here I am with **David Boruchowitz**, editor of TFH, who is autographing one of his books for BAS member, **Larry Jinks**.





cowitz

Editor



Jack Borgese Got fish? ▲



David Boruchwitz speaking ▲ at the Convention.



Mike Hellweg A answers questions on fish breeding.



The Sunday NEC Convention auction in full swing.

Ted Judy, wearing a BAS 100th Anniversary T-shirt, helps out with the auctioneering. ►

Bidders waiting with anticipation for the next lot of fish to be put up for bidding. \checkmark





◀ **Doug Patac** lends a hand in auctioneering.

David Boruchowitz, editor of TFH, was the Saturday morning breakfast speaker urging us to do water changes and more water changes and even more water changes.

He said "Water changes are more important thAn ► feeding!"

Looking on at our front table from left to right:**David Banks** NEC official and president of the Burlington AS, an unnamed hobbyist, **John Todaro** getting ready to take a picture and **Stu Hershkowitz** thinking about all the water changes he basn't done.





A view of our booth at the convention with a display \blacktriangle of 100 years of advances in the hobby.



EXCHANGE EDITOR'S REPORT

The Exchange Editor's job is reading publications from different clubs and suggesting items of interest to our members

• New Hampshire Aquarium Society, *The Granite-Fisher*, Volume 19, Number 9 November 2010. **Tom Neal** writes a cute piece titled *"My Child's First Aquarium."* He goes into detail, but the bottom line is how much time Mom and Dad want to spend helping their budding new aquarist. On another note, President Norman Brandt mentions that at a recent auction a 125 gallon tank went for \$65. Sound familiar?

• North Jersey Aquarium Society, *The Reporter*, October, November, December 2010. Jim Martini has a story titled "*The Old Days Remembered*," where he contacted **Chuck Davis** in Florida and they reminisced.

Chuck Davis pens another one of his articles in October, "OK! Let's Show That Fish" (preparation is the key). In November, he writes "Tiger Loach" (he goes into detail about the tiger loach); "The World's Most Popular Cichlid" (Oscars in a poll of three major wholesalers of tropical fish), and in December "Community Aquariums Revisited." Chuck Davis has another interestingly informative ar-

ticle on *Puntius rhomboocelatus* which was mistaken for a "rosy barb with different markings." He purchased the fish (3 of them) at a dollar fish sale and brought them to the experts, **Dr. Paul Loiselle**, **Marc Weiss** and **Larry Jinks**. All agreed Chuck was correct and the rest is history. Of course, you'll have to read it.

Chuck also did his own product test of a Pro-Dechlorinator by Kent Marine of

Franklin, Wisconsin. Since he moved to Florida, he has had some problems with water that is added to tanks. He always uses a dechlorinator, but some don't do what he wants them to do. So he did his own product test and was very satisfied with this one.

• **Diamond State Aquarium Society**, *The Gravel Gossip*, Volume 47, No.8, 9 and 10, Sept, Oct, and Nov 2010, have several articles worth reading. One is by **Bob Berdoulay**, *"The Amateur Hour,"* where he goes into detail about a Head and Tail Light Tetra *Hemigrammus ocellifer*, a tetra that is native to the southern region of the Amazon basin of South America that he purchased to breed last

EXCHANGE EDITOR'S REPORT

winter when he decided not to "snowbird" it to Florida. Another tale is by **Walt Wisowaty** titled *"White Clouds or How Two plus Two Makes Millions,"* another breeding story for his outside tank for white clouds. The third is actually a series, one each month called *"Mystery Fish."* Each month someone writes a little mystery about a certain type of fish and in the next issue of the Gossip the mystery is revealed. Very cute.

• Missouri Aquarium Society, Inc. The Darter, Volume 36, No. 5 Sept/Oct and No. 6 Nov/Dec 2010, Mike Hellweg pens a piece on "Fish-o-nomics" 101, How Much is That Guppy in the Window?" He talks of the price of fish in the hobby, but reminds us all that fish keeping should be just that, a hobby and not a get rich quick thing. He goes into detail, talking about selling at auctions, the web and Craig's List too. Vice President Kathy Deutsch writes "The Kale Trick," a type of cabbage that she flash-fries and feeds to fish and humans too. Mike also writes "Fish (and Frogs) do the Strangest *Things!!*" This one needs no explanation; just read it. Ed Millinger writes his "From The Fish Room" and he reminds everyone in the hobby to have fun above all else when fish keeping.

• Greater City Aquarium Society-New York, Modern Aquarium, Volume XVII, Number 6, 7, 8 and 9, August, September, October and November 2010, has several articles that are worth reading, one of which is "Live Foods: My Perpetual Daphnia Tank" by Joseph Ferdenzi. He discovered daphnia by accident. Daphnia are minute freshwater invertebrates and make an excellent live food for aquarium fish. The only problem is that pet shops don't sell them anymore. So if you want it, you'll have to keep it going and going and going. You get the picture. Joe also has an article "How Not to Breed Corydoras sterbai." Very nicely done.

Alexander A. Priest also writes "The Cave Secret or Spawning Mouthbrooding Bettas." He also writes "When Three's Not a Crowd," on introducing an additional fish to induce spawning behavior in Betta species. An "erotic" sounding tale nonetheless. Alex's wife **Susan** has a funny column titled "You Know You're an Extreme Aquarist When..." "Breeding a Little Mistake" by **Jules Birnbaum** is a story of when he was a winning bidder on Aquabid for 6 Scleromystax kronei catfish. He was sent 12 by mistake and after a year of growth they were actually Aspidoras albater. These are a different type of catfish that come from the lower Amazon in Brazil. Maybe a mistake, but Jules is ecstatic about it.

• It's always nice to read **Steve Sica's** "Fish Bytes" column, especially when he thanks me for mentioning the articles from his publication. What a nice guy to deal with and talk about. I look forward to more of the same in the future.

That's it for now. See you all next issue. Happy fish reading.



Izzy Zwerin - BAS

EDITORS NOTE: Members with questions about aquatic plants or setting up a planted tank can contact **Isidore (Izzy) Zwerin,** our plant editor. You can call him at **(718) 449-0031** between 7pm to 10pm, Monday to Friday.



Propagating: Nymphaea lotus: The Red Tiger Lotus

ymphaea lotus is a fabulous plant. It is as gorgeous as it is hardy. This is a solitary centerpiece plant, not something you would plant in groups. It is suitable for placement in the front or midground, de-



pending on the size of your tank. The specimen I own is called the red tiger lotus, but there is a green variety as well. This plant is going to require a lot of room. Individual leaves can grow larger than a man's hand. My specimen, although called "red", is more like a metallic copper color with pinkish under tones. These leaves emerge from a tuber on relatively thin stalks. The tuber should not be completely buried in the substrate, just push it in halfway.

This plant has a habit of sending leaves up to the top to float on the surface. It does this to acquire more CO_2 . In a planted display tank this is undesirable because it will block the light from reaching your other plants. These leaves shooting

Nymphaes lotus



p to the top grow very fast, arriving there in a couple of days. You can actually train the plant not to do this. Every time you see one of these leaves heading for the surface cut it off near the base. After a number of attempts the plant seems to give up. Once in a while it may try again, but you know what to do. Once it has been tamed, it will remain fairly low growing. Abundant light and CO₂ cuts down on this tendency. *N. lotus* is a heavy root feeder and to take proper care of this plant you will need to give it substrate fertilizers. Other than that, it does not seem to be fussy as to water parameters. When it gets fat and happy and the tuber has stored up enough energy, it will send out a runner. This runner will form a plantlet which you can remove and transplant elsewhere. Overall this is a trouble free and worthy aquarium specimen.



Dan Hagan TheShrimpFarm.com

Dan Hagan runs <u>TheShrimpFarm.com</u>. This site sells freshwater shrimp. Dwarf freshwater shrimp are the perfect aquatic inhabitants for your under water planted garden. If you're interested in keeping dwarf freshwater shrimp or have a question about them, go to Dan's blog site and ask your question. It's a great site with reliable and accurate information on dwarf shrimp, <u>ShrimpFarm.com</u>.



Neocaridina heteropoda var.

Yellow Shrimp History

The Yellow Shrimp is a fairly recent color variation of the wild *Neocaridina heteropoda*. This color variation was originally bred in Germany and started to appear in the American Dwarf Shrimp hobby in the early 2000's.

Yellow Shrimp Care

The care of the Yellow Shrimp is exactly the same as the Red Cherry Shrimp. They are undemanding when it comes to water parameters, as long as extremes are avoided and the parameters are stably maintained.

Yellow Shrimp Diet

The Yellow Shrimp is an Omnivore. While the Yellow Shrimp is a decent algae eater, when kept in larger groups, supplemental feeding is often required. Foods intended for bottom feeding fish and aquatic invertebrates make great foods. Vegetables that have been thoroughly cleaned and boiled until they are soft are also great foods.



Yellow Shrimp Breeding

Breeding Yellow Shrimp in the home aquarium is rather easy. As long as there is a mature male and a female in a well established, well maintained aquarium they will breed. The male Yellow Shrimp are smaller and a little less colorful, while the females are larger and display deeper, more vivid colors. Mature adult female Yellow Shrimp will often display a saddle on their upper back (seen in insert). This saddle is the female's eggs developing in her ovaries.

Yellow Shrimp Behavior

Yellow Shrimp are a very non-aggressive species of Dwarf Shrimp. The Yellow

Shrimp is very active and will be often seen grazing for algae on plants, decorations and the substrate. They only become shy and hide after molting (when a shrimp sheds its exoskeleton in order to grow or breed).

Special Notes:

As with all aquatic invertebrates, it is important to make sure copper does not get into the aquarium. Copper is toxic to all Dwarf Shrimp. Many medications contain elevated levels of copper, so it is recommended not to medicate an aquarium with Dwarf Shrimp in it.

Scientific Name: Neocaridina heteropoda (var. Yellow) Other Scientific Names: Neocaridina denticulata sinensis (var. Yellow) Common Name: Yellow Shrimp Other Common Names: Yellow Cherry Yellow Shrimp Origin: South East Asia Found in the wild: No pH Range: 6.5 - 8.0 Ideal pH: 7.2 Temperature Range: 65° - 85°F Ideal Temperature: 72°F Hardness Range: 3-15 dkh Ideal Hardness: 6 dkh Life Span: 1 - 2 years Size: 0.5 - 1″inch Gestation Period: 30 days Diet: Omnivore

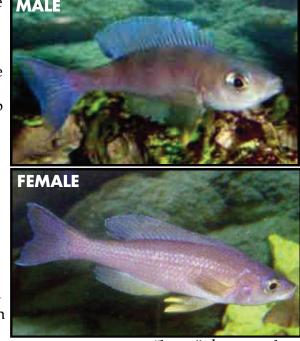
Editors note: Any of the shrimp discussed in these articles can be purchased from **Dan Hagan's** <u>TheShrimpFarm.com</u>. His stock goes quickly, so if you are interested, order ASAP.

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This beautiful herring like fish comes from Lake Tanganyika. There are several species to this family all with slightly different color patterns depending on location in Lake Tanganyika. This fish can attain a length of 8 - 9 centimeters (3 - 4 inches). They are a schooling fish so have at least 9 - 12 individuals in a large tank with plenty of vertical rocks. It is best to have 3 females for every male to lessen harassment and male hostilities. These fish like to hang upside down (like bats) along a vertical rock or slate placed against an aquarium glass wall. They will even use an inverted flowerpot as a comfort station.

The coloration of the **MALE** males is what gives the name "Blue Flash" because these fish swim quickly around the tank. They have beige to tan bodies, with a dark blue color from the tip of the nose over the entire back to the rear of the dorsal fin, but the fins are very colorful in shades of green to dark blue. When in breeding colors, the male's anal fin turns a dark black while shimming in front of females. The ventral fins have a yellow tip to them while the most striking colors are on the tail fin, which is either bright yellow or a



These fish remain at the upper portion of the tank. They are a very peaceful fish and are easily intimidated by other fish. In the wild they fed on zooplankton, in the aquarium they take live or frozen brine shrimp, live black worms or frozen bloodworms, flake food or small pellet food. Feed them foods high in betacarotine, which enhances the colors, at least once a week. Frequent feeding of high color foods, I believe, would tend to

beautiful dark blue. The best way to see these fish is to use florescent blue lighting in the tank.

"burn" them out because they would not be having a balanced diet. It is equally



important to feed them food rich with spirulina. They are not fussy eaters. The temperature should be between 75 – 80° degrees F. (79 – 82° degrees F. for breeding purposes), with a pH of 7.6 – 8.6. These fish love to jump, so keep a tight cover lid on the tank.

I obtained a group of 12 specimens of different sizes, at an auction of the North Jersey Aquarium Society in April 2001. They eventually found their way into one of my 20-gallon long tanks. I had 3 males (2 yellow fin and 1 blue fin) and 9 females. I eventually had to remove one of the males due to constant battles. This calmed the group down with one male taking possession of the left side of the tank and the other taking the right side, with a large inverted flowerpot being the DMZ (demilitarized zone). The females went to both sides without a care in the world. After 3 months, I noticed a female was holding

eggs. This is easy to spot because the mouth's bottom jaw is transparent so you can actually see the eggs in her boucle cavity. Also, the female's head from behind her eye, top of the head to the top of her jaw, there is a dark line like a backward"C." This stays dark until the eggs or fry are released. I moved the female to a small holding tank. 11 days after I first



Do not ever try to "strip" these fish of their eggs or fry because their jaw is very delicate and can easily break. Also these fish are very susceptible to impurities in the water such as nitrates, metals and chlorine. Always use a water conditioner when adding new water or performing water changes.

noticed she was holding eggs, she released one (1) fry and the next day two (2) additional fry. I started them on flake food and Cyclops.

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On October 30, 2001, I witnessed the Blue Flash spawning. They have had spawns prior to this by three (3) females in the group with small clutches of fry released, usually 3 to 5 babies. It was approximately 11:00 PM and the lights on the tank were off; however, the room light was on and it was easy to see into the tank. In mid

water, the male was slightly above, to the left and in back of the female. The female was "kissing" the side of the blue tail male; in retrospect, she was taking the sperm from the male by mouthing the area near the ventral fins yellow tips that resemble eggs. The male responded by turning on a 45-degree angle to give greater access to the female. Then



the male whips around and starts gently nudging the female's side. The male then returns to his original spot and starts telescoping his mouth very rapidly while both fish are rapidly gyrating in place. Then a light beige colored egg appears from the female (this is a large egg for such a small body), but the egg stays in place at the ovai duct of the female. The male whips around again and gently nudges the female's side until she drops the egg. The male then catches the egg in mid water, takes it into his mouth and appears to clean it while rising in the water until he is near the female. The female then comes face to face with the male and the male shoots the egg into the female's open mouth. They both repeat this process several more times. Upon conclusion, the female moves over to where the other male is (the yellow tail) and starts nudging his side to coax him into a position where she can reach his ventral fin area. The new male then starts going into gyrating and telescoping his mouth and the process is repeated.

On December 1, 2001, the female released 7 fry. This was 32 days since conception. The female did eat slightly during the time the eggs were in her mouth, but when the fry hatched, she did not eat until she released them. It is interesting to note that when a female's fry are males, they are of the same tail color, yet when the babies have fry, the opposite tail color emerges on the new males. Since I witnessed the female going to two (2) males for fertilization, it would be assumed that males would come out with both different tail colors or partial color of one and the other, but not wait for the next generation to produce the other tail color. The fry can be released directly into the tank with the other Blue Flash because they are schooling fish and do not bother the fry; in fact, the school protects the fry from predators.

Enjoy the Blue Flash. They are a very interesting and colorful fish that will brighten any aquarium. Just be careful with whom you keep them and you will enjoy them for many years to come.

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- Loiselle, Tetra Press Pages 301-304
- *Enjoying Cichlids*, 1993, author Ad Konings, Cichlid Press Pages 87 89.



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