



May 15, 2007

# tideline aquatics Newsletter

## Tideline Aquatics Store Hours

Monday – Friday 11am-7pm  
Saturday 10am-6pm  
Sundays 1pm-5pm

## MOUTH-BROODING FISH – THE ULTIMATE PROTECTION

There are fresh and saltwater fish that lay eggs and guard them. There are fish that just scatter eggs about, fertilize them and swim off leaving the eggs to care for themselves. There are also fish that place their eggs in carefully attended nests but once the eggs hatch, the parenting often ends. THEN, there are the mouth-brooders. What this refers to is exactly what the name implies. The pair goes through their courtship. The female releases here eggs, then the male swims about fertilizing them. What comes next is true dedication. The eggs are picked up and held in the mouth of the fish! The eggs eventually hatch yet the newly hatched fry remain in the mouth of the parent as they are still too weak to live on their own. The fry quickly develop in the mouth of the parent until they are large enough to find food on their own.



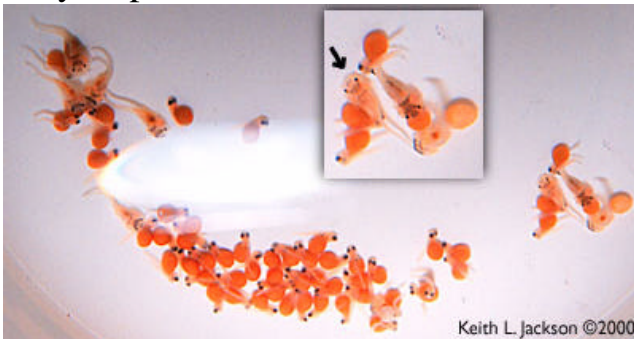
FEMALE GEOPHAGUS RELEASING HER BABIES FROM HER MOUTH FOR A QUICK SWIM.

The parenting skill of mouth-brooders is something no hobbyist should miss. The fish carrying the eggs may not even eat for 9 days or more! If you want a chance to view this in your own aquarium, here are some of the more likely candidates that often spawn in captivity when kept in pairs: Red-Hump Eartheater (*Geophagus steindachneri* – freshwater), Mbuna African Cichlids (*Pseudotropheus* sp., *Melanochromis* sp, *Labidochromis* sp., *Labeotropheus* sp. – freshwater), Peacock Cichlids (*Aulonocara* sp. – freshwater), Kauderni Cardinalfish (*Pterapogon kauderni* – saltwater).



WEST AFRICAN CICHLID RELEASING FRY FROM HER MOUTH AND GILLS.

There are also fish that take advantage of these dedicated parents. The catfish, *Synodontis multipunctatus*, gets out easy when it comes to parenting. This catfish spawns simultaneously with a pair of *Haplochromis* Cichlids. As the female cichlid picks up her eggs, the catfish eggs are mixed with her eggs. Unknowingly, the female cichlid mouth-broods the catfish eggs with hers. The catfish eggs hatch and develop more quickly than the cichlid eggs. Eventually, the female cichlid has a mouthful of only baby *Synodontis multipunctatus* catfish as they have consumed the slower developing baby *Haplochromis* cichlids!



INSET PICTURE SHOWS THE LARGER CATFISH FRY FROM EGGS REMOVED EARLY FROM A MOUTHBROODING CICHLID.

In the saltwater aquarium, the Kauderni Cardinalfish (*Pterapogon kauderni*) have been known to spawn. Mouth-brooding is rarer in marine fish. With the Kauderni Cardinalfish, the male carries the eggs and eventual fry in his mouth.



Once the fry are fully formed, he releases them from his mouth. Because the young are so small and vulnerable, they swim among the sharp spines of the Long Spine Sea Urchin. In the aquarium, placing wooden toothpicks into a piece of foam or cork can mimic the urchin's spines. The baby cardinalfish school into the toothpicks and will feed there until they grow larger.



BABY KAUDERNI CARDINALFISH SWIMMING AMONG TOOTHPICKS IN CORK!

Seeing photos of these mouth-brooding fish can be striking but to actually be able to watch a pair of fish spawn and raise fry in your own home aquarium tops the cake! During your next visit to the store, let us help you select a mouth-brooding species that will coexist with the fish you have in your aquarium.



A RARE MOUTH-BROODING BETTA W/ EGGS!!

## **POND TOUR 2007**

The Charleston Showa Koi Club's Pond Tour tickets for the June 9<sup>th</sup> event are now available at Tideline Aquatics. Tickets are only \$10.00 per person for this self-guided tour. Portions of the proceeds go to the John Ancrum SPCA.



## **PURPLE UP AND CORAL GROWTH RATES**

Carib Sea is doing some experimenting with coral growth using their Purple Up product. Even Tideline was lucky enough to offer a couple of SPS coral frags to be used in the testing. Follow the link below and check out the results of just a couple of months into the testing.

[www.carib-sea.com/pages/grows\\_too/grows\\_too.html](http://www.carib-sea.com/pages/grows_too/grows_too.html)

It is good to know that the products they provide are actually tested for performance. We find their products to be some of the best in the hobby. Visit their site regularly to continue to watch the growth rates of these SPS corals while using Purple Up.

## **LOCAL CLUBS / ORGANIZATIONS**

Want to ask a question about your freshwater, saltwater, reef or garden pond? Visit us at: [www.tidelineaquatics.net/discuss/categories.asp](http://www.tidelineaquatics.net/discuss/categories.asp)

Have a reef aquarium? Check out our local reef club at: [www.charlestonreefers.org](http://www.charlestonreefers.org)

Love water gardens and koi? Visit the Charleston Showa Koi Club website at: [www.charlestonshowakoiclub.org](http://www.charlestonshowakoiclub.org)

Saltwater fish aquarium club – CMAC  
[www.columbiamac.org](http://www.columbiamac.org)

Question and Answer Forum –  
[www.wetwebmedia.com](http://www.wetwebmedia.com)

## **Fish of the Week**



AFRICAN FLAMETAILED AURORA GOBY  
(?AMBLYELEOTRIS AURORA?) CHRIS' HOME AQUARIUM  
In the past year or so, we have had this beautiful goby appear on our availability list here and there but always in very small numbers. The reason the question marks are around the scientific name on this fish is that we are still unsure whether it is the same species collected from the Indo-Pacific or a new species. Both are similarly marked but the Flametail Aurora Gobies we are getting from Africa are bright red in color and the yellow patterns on the tail are incredibly vivid compared with the more dull patterns on the Indo-Pacific goby that looks similar. This fish is extremely hardy and starts eating within 24 hours of arrival to the store. In the reef, this goby pairs easily with a watchman goby. Once established, this is no shy goby! In my (Chris') home aquarium, this

fish sits right out front moving gravel and sand from one area to another – one mouthful at a time! I have this fish with several other gobies and there is no aggression among the different species. My Blue Spotted Jawfish just hates the Aurora Goby but the Aurora could care less. When the jawfish has his mouth wide open in the face of the aurora goby, it simply sits there as if he is too cool to be bothered!! These are normally expensive fish but we have dropped the price for this week only! Print off the coupon at: [www.tidelineaquatics.net](http://www.tidelineaquatics.net)

## **What's New At Tideline**

### **FEEDERS: (NOW IN STOCK)**

Live Black Worms, Ghost Shrimp, Crayfish, Rosy Reds, Guppies, Feeder Goldfish, Fiddler Crabs. Please note that we are running low on Ghost Shrimp, Guppies, Rosy Reds and Goldfish this week.

### **NEW & INTERESTING FRESHWATER FISH THIS WEEK:**

Large Daffodil Brichardi Cichlids (some of the best we have seen!), Rarely Imported Variegated Labeo Sharks from West Africa, Beautiful Nannochromis dimidiatus Cichlids from West Africa (a peaceful species!), Steatocranus tinanti Buffalo Head Goby Cichlids (very cool West African Import), Beautiful White and Gold Koi Angelfish, M/L Assorted Angelfish (a nice mix), Beautiful Killiefish Trio, Altispinosa Bolivian Rams, Incredibly Colorful German Blue Rams (locally bred!), Apistogramma pandurini Dwarf Cichlids, Nice Large Florida Bred Neon Tetras, Cool Elephant Nose, Good Size Bala Sharks, Hard to Get Black Lancer Catfish, XL Clown Loaches, Healthy Otocinclus Algae Eaters, Large Diamond Tetras, Male Cobra Endler's Livebearers and more!

### **GOLDFISH, KOI AND POND PLANTS (NOW IN STOCK):**

Small Domestic Koi (Website Coupon Special), Medium Domestic Koi (Website Coupon Special), Super Red Pond Comets, Japanese Koi from Sakai of Hiroshima, Small Ogon Yamabuki Butterfly Koi, Large Butterfly Koi, Large Domestic Koi, Jumbo Domestic Koi (limited!!), Beautiful Blooming Water Lilies in 1 Gallon Pots, Bog Plants, Pond Lotus (assorted sizes and colors), Floating Island Plants, Parrots Feather Bunches, Hornwort Bunches and more!!

### **SALTWATER FISH (IN STOCK!):**

Fiji Coral Beauty Angelfish, Bali Flagfin Angelfish, Hawaiian Flame Angelfish (incredible color), Indian Ocean Half Black Angelfish, Red Sea Asfer Angelfish, XL Indian Ocean Annularis Angelfish, Indian Ocean Black & White Heniochus, Hawaiian Yellow Longnose Butterflyfish, Sumatra Gold Bar Maroon Clownfish, Nice! Tank Bred Ocellaris Clownfish, Indian Ocean True Percula Clownfish, XL Tomato Clownfish, Pair True Onyx Percula Clownfish (tank bred), Bali Purple Firefish Gobies, Fiji Orange Barred Gobies, Sri Lanka Bicolor Blennies, Jumbo Indian Ocean Scooter Blennies, Singapore Yellow Watchman Gobies, Fiji Yellow Citron Gobies, Indian Ocean Firefish Gobies, African Flametail Aurora Gobies, Indian Ocean Algae Blennies, Philippine Red Lizardfish, Cebu Starry Algae Blennies, Bali Candy Cane Gobies, Indian Ocean Fumanchu Lionfish, African Volitan Lionfish, Fiji Orangetail Blue Spotted Sharpnose Pufferfish, XL Indian Ocean Valentini Pufferfish, Indian Ocean Clown Tangs, African Powder Blue Tangs, Red Sea Sohal Tangs, Fiji Orange Shoulder Tang, Hawaiian Yellow Eye Tangs, Awesome African Twinspot Wrasse, Super Quality Adult and Juvenile Formosa Wrasses from Africa, Super Red Maori Wrasse, African Radiant Wrasses, Christmas Island Bartlett's Anthias (the hardest anthias), Indian Ocean Kauderni Cardinalfish (eating well and fat!!), Fiji Pajama Cardinalfish, Brazilian Royal Grammas, Bali Niger Triggerfish, Indian Ocean Clown Triggerfish, Bali Panther Groupers, Cool Barnacle Blennies and more!!!

## **SALTWATER INVERTEBRATES:**

Pink Tip Frogspawn Coral, Assorted Favia and Favites Corals, Fiji and Bali Cultured Acroporas, Fiji and Bali Cultured Montipora Corals, Tons of Nice Mushroom Rocks, Toadstool Leather Corals, Devils Hand Leather Corals, Lime Green Rasta Leather Coral, Cultured Xenia Corals, Loads of Colorful Zoanthid Rocks, XL Cleaner Shrimp, Nice Pistol Shrimp, Peppermint Shrimp (Caribbean), Sebae Anemones, Bubble Anemones, Rose Bubble Anemones, Purple Condylactus Anemones, Trochus Reef Snails, Pink Margarita Snails, Long Spine Urchins from the Indian Ocean, Pink Vase Turbinaria Cup Coral, Fully Cured Assorted Live Rock and more!!

## **From our Customer Photo Gallery:**



ANDREW AND SAM'S BEAUTIFUL TUBE WORMS

If you have any photos of your aquarium or garden pond, please email them to:

[chris@tidelineaquatics.net](mailto:chris@tidelineaquatics.net)

We would love to post them in our customer photo gallery for everyone to enjoy.