



October 15, 2008

# tideline aquatics Newsletter

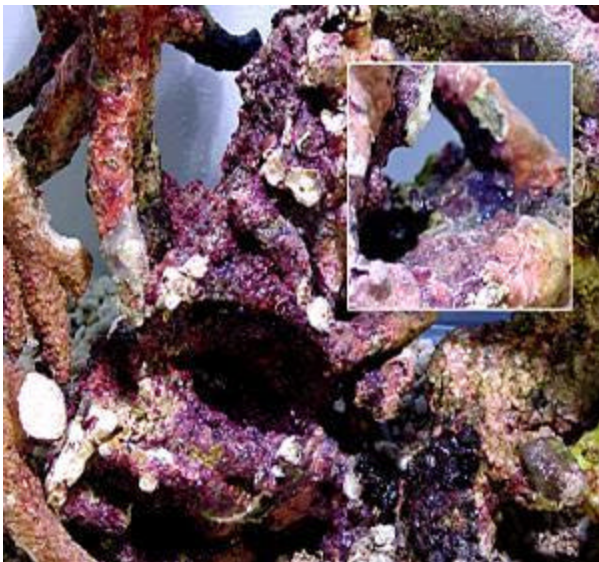
## Tideline Aquatics Store Hours

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

### WHAT IS LIVE ROCK?

Not too far back in our hobby, live rock was considered a benefit only for reef aquariums. But now we know that the addition of live rock to nearly all marine aquariums proves highly beneficial.

First, let's look at the different types of live rock. There is wild collected live rock, that is, rock that is pulled from oceans all over the world and there is cultured live rock. Cultured rock is dry rock placed in the ocean and allowed to be colonized by a variety of marine micro-organisms and macro-algae. Some rock is nothing more than dead coral skeletons that have been over taken by new marine life. This "rock" is typically non-porous with most of the life existing on the outside surface of the rock. This live rock is often covered in brightly colored coralline algae and tiny tube worms that have burrowed into the dead coral skeleton material.



TONGA BRANCH LIVE ROCK

Then there is live rock that is actual rock. This type of rock is porous material with animal life being able to thrive on both the exterior and interior of the rock. This more porous rock is often loaded with micro-organisms like amphipods, worms, juvenile shrimp, burrowing snails AND nitrifying bacteria. Cultured rock is often a more porous rock material. When incorporating live rock in your aquarium, a combination of both branch and porous rock is recommended.



FIJI LIVE ROCK

When enough live rock is used in a marine aquarium, it alone becomes the complete biological filter. That is, the rock has massive amounts of surface area for the growth of beneficial nitrifying bacteria. In parts of the rock where oxygen is readily available, aerobic bacteria reduce ammonia and nitrite into less harmful nitrates. At the same time, within the core of the rock where little oxygen exists, anaerobic bacteria thrive. These bacteria, along with regular partial water changes, reduce the concentration of nitrate in the aquarium. Nitrates are also reduced by protein skimming (the organics are removed before they ever become nitrates), chemical medias (adsorption) and to a lesser degree, a refugium filled with macro-

algae. In aquariums with a quality protein skimmer and adequate amounts of live rock (just under about 1lb per gallon is our suggestion) it is not necessary to utilize biological media like bioballs in your filtration system. In fact, the use of this biomedica can actually increase nitrate production through the rapid reduction of ammonia and nitrite over the oxygen-rich media. Now that does not mean you can suddenly remove the bioballs from your system if you have them! It does mean that you can slowly remove them over several months eventually allowing the live rock to take on the job of nitrification.



The higher organisms in your live rock like tiny snails, micro-worms and amphipods also play a part in keeping your aquarium healthy. These tiny organisms eventually colonize the sand bed in the aquarium feeding on detritus, waste material, algae and uneaten fish foods. Many marine fish also feed on these organisms as well offering a constant source of nutritional supplemental food.



Also within the live rock are many species of macro-algae that sprout here and there offering a nutritious meal to herbivores like tangs, rabbitfish and marine angelfish. These marine fish are able to feed constantly in the aquarium, similar to how they would have fed in the wild. This extra nutritional benefit often results in

brighter colored fish that are less likely to develop nutritional issues like head erosion and lateral line disease.

Of course with all of these benefits there are also the risks involved with adding live rock to your aquarium. In our opinion (and most other aquatic professionals), YOU MUST have an established quarantine aquarium capable of holding all of your fish in the event of a parasite outbreak like marine ich (white spot disease, oodinium, cryptocaryon).



Though there are many parasite treatments marketed as being live rock safe and invertebrate safe, in most cases, they are poor at best for killing off an advanced case of marine ich. Advanced marine ich can only be cured with a copper-based treatment in a quarantine aquarium. All fish will need to be out of the main aquarium for about 30 days to ensure that the parasite has died out due to lack of having a host to reproduce. You can reduce the risk of your fish ever developing a parasite outbreak like marine ich by quarantining ALL new arrivals for 3-4 weeks prior to ever introducing them into your main aquarium. Further risk can be reduced by avoiding fish that are more prone to parasite outbreaks like tangs (surgeonfish) and butterflyfish. Certainly leaving these fish out of your aquarium equation can deny you some favorite marine species but there are MANY marine fish that are just as striking yet much more resistant to parasite disease outbreaks. Maintaining pristine water conditions and a stable temperature will also keep your fish's immune systems strong thus making them more resistant to disease organisms.

Another risk with live rock is the unknowing addition of creatures that can cause harm to your



marine fish. Juvenile predatory crabs and juvenile predatory shrimp can hitch hike a ride from the ocean to your aquarium within the live rock. Eventually, these predators grow to a size where they can wreak havoc on your fish and invertebrates. There are traps available for capturing these creatures but it takes skill and patience to remove these unwanted predators.



Though this is a low risk concern, we do encounter it with customers at the store fairly regularly. There is less risk for this problem if you purchased live rock that was cultured in vats outside the ocean.

Live rock can be added to an aquarium without the addition of intense lighting fixtures. There are varieties of coralline algae that will encrust the rock even under standard lighting illumination though you will not be able to maintain photosynthetic organisms like anemones and live corals. We have seen many aquariums with brightly colored live rock even under standard aquarium fluorescent lights. When adding live rock to an established aquarium with fish and/or invertebrates, it **MUST ALWAYS** be fully cured! “Cured” refers to rock that has recovered from the die-off period associated with collecting and shipping. Some organisms within and on the surface of the live rock simply cannot survive shipping stress as live

rock is shipped in wax-coated cardboard boxes without any water. The initial die-off produces extremely deadly levels of ammonia and nitrite that will kill your livestock. Always purchase cured live rock to place in your aquarium or cure your newly acquired live rock in an aerated container of saltwater (with regular partial water changes) until the water tests free of ammonia and nitrite. At Tideline Aquatics, if you pay for any uncured live rock, we will actually hold it at the store until it is cured (usually takes 10-14 days depending on the type of live rock and its condition after shipping). We simply tag the rock you pick out with colored ties, write you up an invoice and hold the rock until it is safe to place in your aquarium.



From this you can deduce that live rock added to a marine aquarium is a benefit. As long as you realize the risks listed here, you can make the choice based on your ability to properly quarantine new additions and be ready to take action in case you have to remove your fish to treat them for disease. Remember, live rock is not required for “fish only” aquariums, but it can enhance the health of your aquarium and its inhabitants as long as you acknowledge there are risks. In reefs, live rock is still considered a must but making smart livestock choices (avoiding disease prone species) and using proper quarantine methods will reduce the chance your fish will have to be removed and treated for disease.

## **OUR NEWLY DESIGNED WEBSITE IS UP AND RUNNING!**

We've just launched our newly designed website. When you go to print off this weeks coupon specials, take a tour and check out all of the new features. We are FINALLY working on the freshwater section of the site and are in the process of adding a "frequently asked question" section. Soon you will find bios of all the Tideline Aquatics staff as well! We encourage you also to participate by emailing us your favorite pictures of your fish, your aquarium and/or your garden pond for posting in the newly renovated Customer Photo Gallery. We have to thank the hard work that **Prybo.com** has done in launching our newly designed website. I (Chris) highly recommend them to anyone wanting to create a webpage for their business! We will keep you updated on when we add additional content to our website.

## **FEATURE FRESHWATER FISH: THE BLACK GHOST KNIFE**



**APTERONOTUS ALBIFRONS**

We could think of no better fish to feature during the Halloween season than the extraordinary, mysterious and elegant Black Ghost Knife. This strange and usually secretive knifefish from the dark waters of the Amazon in South America is now available tank bred! These tank bred black ghost knives are more active during the day than the wild collected specimens. Being tank bred also has other benefits. These fish accept all types of dry foods, are more social with one another and are more adaptable to aquarium water conditions. Ghost knives can move forward, backward, straight up or down with the undulating fin that stretching the length of the entire fish. The addition of a hollow pipe, a clear tube (ghost house) or a rock cave will give your

ghost knife the comfort they enjoy. The Black Ghost Knife should be housed with medium sized fish like gouramis, larger live-bearers, rainbowfish, angelfish, discus and similarly sized species. As full-sized adults (about 12"-14"), they can even be housed with larger peaceful cichlids like severums, uarus and geophagus. These are now about 4" long. We currently have these fish acclimated to a pH of about 7.4 in soft water at a temperature of about 80 degrees. If you want to add something unusual to your regular group of fish, the black ghost is the perfect choice. We have a super discount coupon on our website this week to give anyone that wants something different for their aquarium a chance at this lovely fish at a great price.

## **WHATS NEW AT [tideline aquatics?](#)**

### **FEEDERS (ALL IN STOCK!!!!):**

Ghost Shrimp, Guppies, Crayfish, Fiddler Crabs, Goldfish, Rosy Redds, Live Black Worms.

### **FRESHWATER FISH:**

**Livebearers** – Gold Crescent Platies, Sailfin Mollie Pairs, Multi-Color Fancy Guppy Pairs, XL Red Velvet Swordtails, Assorted Swordtails, Dalmation Mollies, Assorted Platies, Gold Dust Mollies, Lg Marigold Lyretail Swordtails, Black Yucaton Mollies.

**Catfish/Loaches/Plecostomus** – Awesome Orange Striped Aneus Cory Catfish, Albino Corydoras Catfish, Arcuatus (Skunk) Corydoras Catfish, Medium Siamensis Flying Fox Algae Eaters, Tank Bred Bushynose Plecostomus, L007 Dracula Plecostomus, L018 Gold Nugget Plecostomus, Pygmy Corydoras Catfish, Horseface Loaches, Banded Coolie Loaches, Black Coolie Loaches, Turashukin Catfish, Hypostomus Plecostomus, Chinese Butterfly Sucker Loaches, Golden Marble Chinese Algae Eaters, 2" Clown Loaches, 5" Clown Loaches (WOW), Common Plecostomus, Four-line Pictus Catfish.

**Brackish** – Tank Bred Mono Sebae, Australian Gold Desert Gobies, Tank Bred Mono Argentius, Green Spotted Pufferfish, Figure Eight Pufferfish, Tank Bred Archerfish.

**Tetras / Rasboras / Barbs / Danios** – Zebra Danios, Rummynose Tetras, Large Neon Tetras, Orange Von Rio Tetras (beautiful), Electric

Green Glo-fish (WOW), Resplendens Rasboras (awesome), Sunburst Orange Glo-fish, Longfin Black Skirt Tetras, Red Serpae Tetras, Bloodfin Tetras, Scissortail Rasboras, Harlequin Rasboras, Male Longfin Rosy Barbs, Red Cherry Barbs, NEW Octozona Barbs, Lg Congo Tetras, Red Phantom Tetras, Red Starfire Glofish Danios, Tiger Barbs, Medium Silver Dollars, White Cloud Mountain Minnows, Green Fire Tetras, *Pristella Maxillaris* Tetras.

**Gouramis / Bettas** – Powder Blue Dwarf

Gouramis, Pink Kissing Gouramis, Male Bettas, Female Bettas, Red Paradise Gouramis, Opaline Gouramis, Small and M/L Leopard *Ctenopoma*, Powder Blue Dwarf Gouramis, Red Flame Dwarf Gouramis, Gold Gouramis, Pearl Leeri Gouramis.

**Cichlids** (Dwarf, South American, African) – Black “Inkfin” *Calvus* Cichlids, *Apistogramma cacatuoides* ‘Mega Red’ Pairs, Black Lace Angelfish, Gold Veil Angelfish, Koi Angelfish, Zebra Lace Veil Angelfish, German Blue Rams, German Gold Rams, *Festae* Cichlids, Lg Albino *Compressiceps* Cichlids, *Geophagus* ‘Red Head Tapajos’ Eartheaters, Baby Peacock Bass, *Apistogramma* Fancy Pairs (few), *Livingstoni* African Cichlids, *Polystigma* African Cichlids, Golden Rock *Kribensis* Cichlids, Dwarf Checkerboard Cichlids, *Altispinosa* Bolivian Rams, S/M Jaguar Cichlids, M/L Jaguar Cichlids, Electric Blue Jack Dempseys, Small Oscars, Medium Striated Pike Cichlids, S/M Orange Pike Cichlids, Rare *Metae* Cichlids, Small Jaguar Cichlids, Assorted Medium Peacock Cichlids, Lg Male Electric Blue Ahli Cichlids, Medium Firemouth Cichlids, Keyhole Dwarf Cichlids, Green Terror Cichlids, XL Wild Caught *Altum* Angelfish (Nice), Assorted Small Standard Angelfish, *Julidichromis* Cichlids, *Frontosa* African Cichlids, Assorted Premium Mbuna African Cichlids, Texas Cichlids, *Telmatochromis brichardi* Cichlids, Daffodil *Brichardi* Cichlids, Male *Otopharynx lithobates* Cichlids.

**Other** – Dwarf African Frogs, Tank Bred Black Ghost Knives, Jumbo Algae Eating Japonica Shrimp, Freshwater Flounders, Colombian Shark Catfish, Rainbow Sharks, Redtail Black Sharks, *Leporinus fasciatus*, *Roseline Denisonii* Sharks, Freshwater Stingrays, Freshwater Lionfish (ugly

beasts), XL Elephantnose, Ornate Double Trunk Elephantnose, Australian Gold Desert Gobies, African Butterflyfish, *Furcata* Rainbowfish, Saber Tusk Barracudas, Lg Silver Arowanas, Medium and XL Clown Knifefish, Yellowtail Spiny Eels, African Ropefish, Chinese Algae Eaters, Bala Sharks, Orange Japonica Shrimp, Olive Nerite Snails, Medium Silver Dollars, Albino Clawed Frogs, Electric Green, Red Starfire & Orange Glo-fish, Red Cherry Shrimp, XL Albino Clawed Frogs.

**Goldfish** – Red Cap Orandas, Medium Assorted Orandas, Large Assorted Orandas, Assorted Ryunkin Fantails, Small Assorted Fantails, Small Black Moors.

**Koi, Pond Fish and Pond Plants** –

XL and Jumbo Domestic Koi, Small Koi, Medium Koi, Medium Butterfly Koi (few), Shubunkins (few).

The list above represents only the most recent livestock shipment. We have MANY other species available at the store!

**SALTWATER FISH:**

**Angels / Butterflyfish** – Tank Bred Maculosis Angelfish, Rusty Angelfish, Melas Angelfish, Juvenile Koran Angelfish, *Eiblii* Angelfish, Lemon Peel Angelfish, Yellow Dwarf Angelfish, Half Black Angelfish, Flame Angelfish, Auriga Threadfin Butterflyfish, Raccoon Butterflyfish, Majestic Angelfish, Adult *Annularis* Angelfish, Asfur Angelfish, Fiji Coral Beauty Angelfish, Super Rare Blueline Angelfish, *Kleini* Butterflyfish, Yellow Longnose Butterflyfish.

**Clownfish** – *Ocellaris* Clownfish, Gold Bar Maroon Clownfish, Tank Bred Red Sea *Bicinctus* Clownfish, Pair True Black *Ocellaris* Clownfish (incredible!), *Sebae* Clownfish, African *Allardi* Clownfish, Orange Skunk Clownfish, Baby Tomato Clownfish, Tomato Clownfish, Pair of True *Percula* Clownfish.

**Gobies / Blennies** – Bicolor Blennies, Twinspot Signal Gobies, Redhead Gobies, Blue Spotted Jawfish, Pearly Jawfish, Tiger Jawfish, Green Clown Gobies, *Yashia Haze* Goby, Adult and Juvenile Engineer Gobies, Diamond Sifter Gobies, *Randalli* Gobies, Golden Midas Blennies, Eyelash Blennies, Scooter Blennies, Firefish Gobies, Starry Algae Blennies,

Scissortail Gobies, Green Mandarins, Dragon Sifter Gobies, Yellowtail Mozambique Fang Blennies, Yellow Watchman Gobies, Bluespot Watchman Gobies, Blue Gudgeon Torpedo Gobies, Fiji Yellow Citron Clown Gobies, Bluefin Watchman Gobies, Candy Cane Gobies.

**Wrasses / Hogfish** – Trilobatum Wrasses, Juvenile Fiji Red Coris Wrasses, Yellow Coris Wrasses, Red Diana Hogfish, Spanish Hogfish, Christmas Wrasses, Purple Fairy Wrasses, Sixline Wrasses, Balteatus Fairy Wrasse, Exquisite Fairy Wrasse, Candy Hogfish, Green Melanurus Wrasses, RARE Yellow Pedito Hogfish, Twelve Line Wrasses, Green Bird Wrasses.

**Tangs / Rabbitfish** – Hawaiian Naso Tangs, Brown Scopas Tangs, Convict Tangs, Mimic Yellow Tangs, Powder Blue Tangs, Hawaiian Yellow Tangs, Orangefin Tangs, Sailfin Tangs, Hawaiian Orange Shoulder Tangs, Yellow Eye Kole Tangs, Foxface Rabbitfish, Small Blue Regal Tangs.

**Triggerfish / Eels / Puffers** – Unusual Bluespot Pufferfish, Regular Bluespot Pufferfish, Humu Triggerfish, Bursa Triggerfish, Small Clown Triggerfish, Large Banded Moray Eel, Sufflamen Triggerfish, Pinktail Triggerfish, Bluejaw Triggerfish, S/M Snowflake Moray Eels, Zebra Moray Eel, Green Wolf 'Eel', Niger Triggerfish, Black Indicus Triggerfish.

**Lionfish** – Black Volitan Lionfish, Dwarf Lionfish.

**Other** – Hawaiian Banded Hawkfish, Longnose Hawkfish, Flame Hawkfish, Bicolor Pseudochromis, Purple Pseudochromis, Royal Grammas, Kauderni Cardinalfish, Green Chromis, Vanderbuilt Chromis, Assorted Damsel fish, Male Squareback Anthias, Blue Spotted Jawfish, Pearly Jawfish, Tiger Jawfish, Bartlett's Anthias, Black Cardinalfish, Marine Betta, Gold Striped Cardinalfish, Neon Velvet Damsel fish, Green Mandarin Dragonettes, New Red Pseudochromis, Silver Striped Squirrelfish, Miniatus Grouper (baby and large), Whiptail Snapper, Domino Damsel fish.

## **INVERTEBRATES:**

**Snails / Cucumbers / Starfish / Urchins** – Basket Starfish, Common Sifting Cucumbers,

Vietnam Marble Turbo Snails, Red Fromia Reef Starfish, Banded Serpent Starfish, XL Tonga Nassarius Snails, Red Striped Trochus Snails, Pyramid Reef Snails, Small Nassarius Snails, Caribbean Turbin Snails, Cerith Snails, Chocolate Chip Starfish, Green Brittle Starfish.

**Crustaceans** – Blue Spiny Lobsters, Reef Lobsters, Caribbean Peppermint Shrimp, Large Cleaner Shrimp, Red Fire Shrimp, Evil Peacock Mantis Shrimp, Green Saron Shrimp, Redtip Reef Hermits, Sallylite Foot Crabs, Strombus Conch Snails, Electric Blue Reef Hermits, Halloween Reef Hermits, Emerald Crabs, Coral Banded Shrimp, PAIR Golden Banded Shrimp.

OUR CORAL SELECTION HAS NEVER BEEN BETTER THAN RIGHT NOW FOLKS!!

**Corals / Polyps / Mushrooms** – Green Metallic Star Polyp Rocks, Show Size Star Polyp Rocks, Green Daisy Polyp Rocks, Tubastrea Sun Polyp Rocks, Green Rhodactus Mushroom Rocks, Super Pink Zoanthid Rocks, Metallic Zoanthid Polyp Rocks, Super Show Size Metallic Wall Hammer Coral, Super Show Size Multi-Color Branching Frogspawn Corals, Medium Assorted Color Frogspawn Corals, Green Torch Corals, Gold Torch Corals, Super Red Mushroom Rocks, Green Finger Leather Corals, Gold Ultra Spaghetti Leather Corals, Bubble Corals, Candy Caulestrea Corals, Long Tentacle Plate Coral, Metallic Orange & Green Striped Fungia Plate Coral, Green Mumps Leather Corals, Yellow Leather Corals, Leptastrea Brain Corals, Ultra Favia Corals, Super Blue Mushroom Rocks, Australian Blasstomussa Corals, Pink Fungia Plate Coral, Tonga Bullseye Mushroom Rocks on Branches, Green Duncanopsamia axifungi Coral, Purple Lemnalia Tree Corals, Yellow Polyps, Green Zoanthid Rocks, TRUE BLUE ZOANTHID ROCK, Toadstool Leather Corals, Green Trachyphilia Corals, Green Lobophyllia Corals, Green Scolymia Vitiensis Corals, Orange Scolymia Vitiensis Corals, Cultured Acroporas, Assorted Indo Mushroom Rocks (LOTS AND SUPER NICE!).

**Other** – Four Layer Feather Dusters, Purple Sea Apple, Super Nice Fancy Gorgonian Sea Fans, Bubble Anemones, Carpet Anemone, Long Tentacle Anemones, Sebae Anemones, Orange Fan Sponges, M/L Blue Crocea Clams,

Squamosa Clams (hard to find!), Hawaiian Feather Dusters (NICE), Red Hard Tube Coco Worm Dusters.

WE NOW HAVE SOME OF THE MOST INCREDIBLE LIVE ROCK EVER! BOTH CURED AND UNCURED NOW AVAILABLE!!!

Awesome Cured Tonga Branch Rock, Super Premium Fiji Live Rock (some with polyps, xenia and mushrooms attached! – Bright Purple Rock), Premium Totoka Live Rock (not cured).

This list is based on our most recent shipments of saltwater livestock. There are many other species available in the store not included in this list.