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tideline aquatics Newsletter

Tideline Aquatics Store Hours

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

LIGHTING CHOICES FOR THE REEF & PLANTED AQUARIUM

With all the lighting choices available to the hobbyist today, it can be confusing and difficult to make the best choice for your particular aquarium. Years ago, the rage was the use of VHO (Very High Output) fluorescent lighting. Then the use of Metal Halide lighting moved in and took over the market. Eventually, more affordable Power Compact (PC) fixtures became popular. These fixtures provided intense lighting at a fraction of the cost of Metal Halides and with less cost in operating the fixture. Now emerging in popularity is the HO (High Output) T5 fluorescent fixtures. These fixtures are becoming more and more affordable, cost little to operate, generate little heat and the replacement bulbs are inexpensive compared with the cost of replacing Power Compact lamps (the cost of replacing PC lamps is often close to the cost of a brand new fixture). In the future, we are likely to see affordable LED (Light Emitting Diode) fixtures for lighting our reefs and planted aquariums. For now though, these fixtures remain out of the price range for most aquarists (a 48" Solaris fixture retails for nearly \$3000.00).



EXPENSIVE BUT "TOP OF THE LINE" LED FIXTURE

As technology advances and production increases, these LED fixtures may eventually replace all types of aquarium lighting. Here are some interesting facts about the current Solaris LED fixtures. The expected life of the LED lamps is 50,000 hours. That means if you were to run the fixture for 12 hours per day, the lamps would not need replacing for 11 years!!! There is practically no heat that reaches the aquarium from the light fixture. LED fixtures use 40% less energy than a 400 watt Metal Halide fixture. Still, the cost is likely to keep most folks just wishing for one of these LED fixtures.



For now, let's talk about the HO T5 fixtures that are now available for both planted and reef aquariums. Though most have concentrated on watts per gallon, one should instead consider the Lumens produced by the lamp. A 150 watt metal halide lamp produces about 15,000 lumens which is approximately 100Lpw (lumens per watt). A 65 watt PC lamp produces about 4400 lumens which is approximately 68 Lpw. Compare those numbers with a single 54 watt HO T5 lamp which produces 4700 lumens which is approximately 87Lpw. Though the metal halide

clearly produces more visible light (lumens), the fixture is expensive to operate each month and generates much more heat. The lamp temperature of a single 400 watt metal halide bulb is about 1200 degrees compared with a T5 lamp of only 77 degrees! Both metal halide lamps and power compact lamps have extreme color shifts as they age. After one year, metal halide lamps decreased anywhere from 22% (67K) to 50% (20K) in intensity. Power Compact lamp manufacturers suggest replacing these lamps every 12 months. At Tideline, we find these lamps to shift in color spectrum after about 10 months when operated at 10-12 hours per day. Though the reef organisms appear healthy even after this time, the visible light from the lamp appears much more yellow in color. Though this is mainly an esthetic issue, we have also seen more issues with problematic algae when this occurs. Heat is a big factor with degrading power compact lamps. Never run these lamps if the cooling fan in the fixture is not operating. T5 lamps run cool (about 77 degrees) and tend to hold their spectrum better than both PC and halide lamps. The efficiency of T5 lamps over the aquarium greatly depends on the reflector used in the fixture. A quality reflector will direct all the light down into the aquarium making the lamps most effective. T5 HO lamps should be replaced after about 25,000 hours of operation. The lumen maintenance (how well a lamp maintains its light output over time) of a T5 HO lamp is 95% compared with a metal halide lamp at 75%. T5 HO lamps cost about 30% less to replace than PC lamps and about 70% less than a quality Metal Halide lamp. T5 HO fixtures are the least expensive fixture to operate when compared with the PC and Halide fixtures. With all of this information, we suggest using the T5 HO fixtures when possible. Aquariums that are deep (over 25") should still consider the use of metal halides over the T5 fixtures as the choice lighting when keeping SPS corals. As for power compact fixtures, we are moving toward the T5 HO fixtures for the reasons listed in this article. See our new selection of these fixtures during your next visit to Tideline Aquatics. Fresh and saltwater applications are now available!!

SAFETY FIRST! DO NOT BURN DOWN THE HOUSE!!



Now that we are doing home aquarium servicing, we have been alarmed at the number of folks using power strips inappropriately under their aquariums. In at least two instances, a fire was about to occur under the aquarium cabinetry! Power strips with ground fault interrupters (GFI) are an excellent idea when used properly. These strips should ALWAYS be mounted in the cabinet above the filtration components and never just sitting on the bottom of the cabinet. At least every two months, the power strip should be wiped clean of salt creep, dust and other debris. Within the cabinet of a saltwater aquarium, salt deposits will form on the walls of the cabinet and everything else within the cabinet, including the power strip. Salt is an excellent conductor of electricity. If salt builds up on the surface of the power strip or a receptacle, a fire will eventually occur! Even a strip mounted above the filtration components can have this happen. Check yours immediately for this condition. Power strips lying on the bottom of the cabinet can easily be shorted out by just the smallest amount of water dripping into one of the sockets. A leaky filter or drain pipe could also short out your power strip sitting on the bottom of the cabinet stand or floor. At two of the home aquariums we serviced, each had receptacles that were corroded. One shocked us upon touching one of the plugs. When we unplugged the unit and removed the plugs from the power strip receptacle, the unit was melted and smoldering! The other home had a power strip with two melted black receptacles from coming in contact with water. Make this a new maintenance

procedure for your aquarium. One more consideration is your aquarium light fixture. If moisture is forming in your light fixture, fix that problem now. Add glass tops to your aquarium or at least wipe down any moisture from the fixture each time you service your aquarium each month. Don't let your beautiful aquarium burn down your home from such a simple fix.

EASY TO BREED AT HOME **FRESHWATER FISH**

Do you have a 10 or 20 gallon aquarium hidden away in the closet? Have you thought about setting up a species tank for a pair of fish to breed? The conditioning, preparation and eventual courtship of a 'parental care' freshwater fish pair is quite amazing to experience. Consider one of these fish for a breeding tank experience.



The German Blue Ram **(*Mikrogeophagus ramirezi*)**

The German blue rams we sell at Tideline Aquatics are all locally bred and have never been hormonized (a common practice with imported rams often leading to sterility). These fish are easily sexed with the female displaying a bright pink patch on her abdomen (female pictured on the left in above photo). The male ram has two extended dorsal rays, tends to be larger and lacks the pink spot on the breast. Put your pair of rams in an aquarium with an established biological filter. Rams prefer to lay their eggs on flat rocks or driftwood. A female ram may lay between 20-200 eggs in one spawning. First you should condition the fish for breeding by offering them a diet mixed with frozen bloodworms, brine shrimp and/or blackworms along with their basic complete diet food choice. The aquarium should be warm (about 80-84 degrees) and the water should be soft with a pH of 6.0-7.0. From here, the fish do their own thing! The courtship and

mating ritual of the blue ram is something to watch. The color of both fish is extremely intense during spawning. After the female lays the eggs, the male moves over them to fertilize them. Both parents will tend the eggs aggressively. The eggs hatch after about three days and the fry become free-swimming in about five days. At this point, the fry will need to be fed infusoria for the first week then growing large enough to be fed baby brine shrimp. To prevent the fry from being killed by filtration components, we suggest using a sponge filter for your breeding tank. If the parents eat the eggs the first few times, do not be alarmed. Maturing rams will nearly always become excellent parents. German blue rams live about three years in the aquarium!



The Kribensis (*Pelvicachromis pulcher*)

Another easy to breed aquarium fish is the lovely Kribensis cichlid from West Africa. This dwarf cichlid prefers to lay eggs in caves. A small clay flower pot, a half coconut shell or even a slice of PVC pipe will suffice for a breeding pair of kribensis. These fish can be rough on one another and do best when kept busy with a simple dither fish like a small group of zebra danios. The parents will spend time chasing the zebras away instead of focusing on quarreling with one another. Female kribensis have a bright red or purplish spot on the side of the breast while the male has more elongated fins and a more pointed tail (often with black spots on the dorsal and tail). At a temperature of 78-80 degrees and a pH of 6.8-7.0, a well-conditioned pair of kribensis will begin their courtship. The female will deposit anywhere from 50-300 eggs on the underside of a cave and the male will come behind her to fertilize them. Watch the pair for aggression toward one another after the spawning has ended and remove one of the pair

if damage begins to occur. The eggs will hatch in about 3-5 days. After a couple of more days, the fry will become free-swimming and require feeding. Baby kribensis are quite large and can accept finely ground flake food mixed with baby brine shrimp.



The Convict Cichlid (*Archocentrus nigrofasciatus*)

The convict cichlid is a tough and aggressive smaller cichlid from Central America. Though the name implies hate, they are extremely good parents! This is likely one of the most simple of fish to breed in the aquarium when it comes to egg-layers. We have seen this fish spawn on the glass, on or inside PVC pipe and even on driftwood in the store in an aquarium with dozens of other convicts present. The parents guard the eggs completely trying to kill any fish that comes too close! Convict cichlids are easy to sex as only the female displays the orange patch (see picture) on the side (true in black or pink convicts). Just add a small pair of these fish to the aquarium, feed them well and they will almost certainly spawn within a couple of weeks. The pair will lay between 50-300 eggs depending on the size of the parents. The eggs hatch in only 72 hours at about 78 degree water temperature. The parents guard the eggs together and wish to do nothing else! Any fish that comes near may be killed. The fry become free-swimming about 5 days later and will accept powdered flake food and baby brine shrimp. Parents are known to lay more eggs as soon as the fry are only a few weeks old.

FIREFISH GOBIES – PRICES VARY GREATLY BETWEEN SPECIES!

Firefish gobies are beautiful and hardy marine fish when shipped and handled properly. They are popular in both reef and fish-only systems when housed with peaceful tankmates. Avoid most varieties of Pseudochromis and hawkfish with firefish as they tend to constantly chase them down and attack them. We are often asked why there is such a huge price difference among different species of firefish. Well the answer is the depths at which the fish is collected. The common firefish (*Nemateleotris magnifica*) is found in large numbers at only 15 to 50 feet deep waters from the Indo-Pacific to Africa to as far as Hawaii. These fish are found in large numbers where they are easily collected and brought to the surface. This fish is pictured below.



The purple firefish (*Nemateleotris decora*) is collected mainly from the Indo-Pacific in waters 80-90 feet deep. Because of these depths, the fish are collected in smaller numbers and require decompression to bring them to the surface safely. The extra care these fish require during collection results in the higher price for this beautiful firefish goby. The purple firefish is pictured below.



Last we will cover the incredibly beautiful and extremely expensive Helfrichi firefish goby (Nemateleotris helfrichi). Most of these exquisite firefish are collected from the Marshall Islands in water over 100 feet deep. Requiring long decompression methods and with their limited range for collecting, this will always be the Jaguar of the firefish group. Though they are just as hardy, the Helfrichi firefish takes a dedicated (and deep pocketed) hobbyist to take one of these beauties home. See this striking firefish pictured below.



What's New At Tideline

FEEDERS (SEE BELOW!!): Feeder Guppies (NOW AVAILABLE), Feeder Goldfish (LIMITED), Feeder Rosys (NOW IN STOCK), Feeder Crayfish (PLENTIFUL), Feeder Fiddler Crabs (PLENTIFUL), Live Black Worms (IN STOCK FOR NOW), Ghost Shrimp (NOW AVAILABLE BUT RUNNING LOW).

NEW FRESHWATER FISH:

Livebearers – Black Yucatan Mollies, Fancy Guppies (locally bred), Red Velvet Swordtails, Large Dalmation Mollies, 24K Tuxedo Platies.

Catfish/Loaches – Pygmy Corydoras Catfish, Skunk (Arcuatus) Corydoras Catfish, Melanistiuis Corydoras Catfish, Albino Corydoras Catfish, Golden Chinese Algae Eaters, Clown Loaches, Otocinclus Algae Eaters, Botia striata Loaches, Botia lohachata Loaches.

Brackish – Bumble Bee Gobies, Red Scatophagus, Archerfish, Figure Eight Puffers.

Tetras / Rasboras / Barbs / Danios – Red Serpae Tetras, Black Skirts, White Skirts, Large Bleeding Hearts, Glo-lite Danios (nice), Harlequin Rasboras, Black Neons, Zebra Danios, Starfire Red Glo-fish Danios, Checkerboard Barbs, Rummynose Tetras, Longfin White Clouds, Coral Red Pencilfish, XL Florida Neon Tetras.

Gouramis / Bettas – Ctenopoma ansorgii, Mixed Color Female Bettas, Assorted Male Bettas, Gold Gouramis, Blue Gouramis, Bright Red Flame Dwarf Gouramis, Pearl Gouramis.

Cichlids (Dwarf, South American, African) – XL Breeder Pairs German Blue Rams (awesome), Ass't Apistogrammas, Convicts, Kribensis, Dempseys, Assorted Africans, Tropheus species, Frontosa Cichlids, Geophagus species, Firemouths, Keyhole Cichlids, Managuense Jaguar Cichlids.

Other – Leporinus, False Trigrinis Shovelnose, Black Arowanas, Silver Arowanas, Barracudas, Motoro Stingrays, Lungfish, Tiretrack Eels, African Ropefish, Longnose Elephantnose (Rare), Freshwater Olive Nerite Snails, Hifin Paroon Shark, Elephant Nose and much more!

HANS GERMAN DISCUS NOW IN STOCK AND READY FOR SALE – INCREDIBLE!

The following color strains are available in a 3"-4" size: Flachen (Green Turquoise), Blue Pigeon Blood, Red Pigeon Blood, Marlboro Red, Blue Cobalt & Blue Diamond.

SALTWATER FISH (ARRIVED TUESDAY):

Angels / Butterflyfish: Coral Beauty Angelfish, Koran Angelfish, Asfur Angelfish, Brazilian Queen Angelfish, Half Black Angelfish, Auriga Butterflyfish, Teardrop Butterflyfish, Kleini Butterflyfish.

Clownfish – True Percula Clownfish, Gold Bar Maroon Clownfish, Ocellaris Clownfish, True Black Ocellaris Clownfish, African Allardi Clownfish.

Gobies / Blennies – Bicolor Blennies, Gold Midas Blennies, Algae Blennies (lots), Common Firefish Gobies, Purple Firefish Gobies, Helfrichi Firefish Gobies, Golden Head Sifter Gobies, Dragon Sifter Gobies, Mandarin Dragonettes.

Wrasses – Purple Fairy Wrasses, Solorensis Fairy Wrasses, Yellow Coris Wrasses, Potter's Wrasse, Lunare Wrasses, Green Bird Wrasses, Australian Harlequin Tuskfish

Tangs – Sailfin Tangs, Powder Brown Tangs, Yellow Tangs, Clown Tangs, Jumbo Clown Tang, Powder Blue Tangs.

Triggerfish / Eels / Puffers – Clown Triggerfish, Humu Triggerfish, XXL Pinktail Triggerfish, Dogface Pufferfish.

Lionfish – Lunulata Volitan Lionfish.

Other – Green Chromis, Royal Grammas, Spotted Hawkfish, Forster Hawkfish, Red Squirrelfish (only one), Tiera Batfish, Orbicularis Batfish, Tank Bred Seahorses.

INVERTEBRATES:

Crustaceans – Red Tip Cortez Reef Hermits, Halloween Reef Hermits, Common Hermits, Sally Lite Foot Crabs, Arrow Crabs.

Snails / Cucumbers / Starfish / Urchins – XL Nassarius Sand Sifting Snails, Mexican Turbo Snails, Turbin Snails, Cerith Snails, Chocolate Chip Starfish, Sand Sifting Starfish, Tuxedo Urchin (only one arrived).

Corals / Polyps / Mushrooms – Yuma Mushrooms, Green Mushrooms, Spotted Mushrooms, Ricordea Mushrooms, Red Chili Soft Corals, Nano Candy Corals, Nano Favia Corals, Nano Star Polyps, Green Pipe Organ Corals, Bisma Worm Rocks, Yellow Polyps, Mixed Zoanthids, Spiny Cup Pectinia Corals, Green Frogspawn Corals, Hammer Corals, Large Favites Super Brain Corals, Green Trachyphyllia Corals, Yellow Devils Hand Leather Corals, Toadstool Leather Corals, Hairy Leather Corals, Green Spaghetti Leather Corals, Fiji Green Finger Leather Corals, Krupuk Cabbage Leather Corals, Common Finger Leather Corals, Assorted Cultured Acroporas and Montiporas.

Anemones – Beautiful Bubble Anemones, Medium and Large Long Tentacle Anemones.

Other – Blue Spotted Algae Eating Seahares.