

# JANUARY NEWS

from **NIELSEN'S MARINE MATES**

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Welcome to our first newsletter for 2009. We hope you had a great Christmas and New Year. Already we are receiving lots of new stock in store with some lines displayed at our annual trade show in October, now arriving from overseas. Our Quarantine Room is going extremely well and we have already landed fish from a number of countries with more on the way. We hope to see you in the store soon.

## PROTEIN SKIMMING FOR THE MARINE AQUARIUM.

Protein skimmers, also called foam fractionators, work by producing super-fine bubbles to foam the water in the column of the skimmer. Dissolved organic waste and fine suspended particles are suspended in the foam which is pushed up into a collection cup. When the bubbles burst the waste is left behind and so can be removed from the aquarium when the sludge collected in the cup is cleaned out.

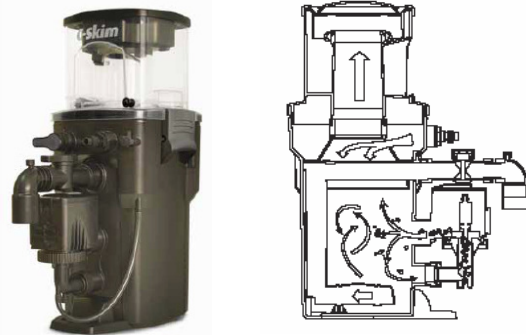
Unlike mechanical filters where the waste is trapped in some kind of filter material, but is still in contact with the aquarium water, protein skimming separates the waste from contact with the aquarium. Protein skimmers will not substantially reduce existing nitrate levels in an aquarium, but will remove wastes which would normally break down to become nitrate and thus will assist in keeping levels to an optimum.

In addition to removing harmful organic compounds, skimmers will reduce harmful floating bacteria, since bacteria need these organic compounds to grow and reproduce. Dissolved oxygen levels are also improved and the incidence of slime algae may be reduced as dissolved organics (the food source) are kept to a minimum. Whilst protein skimming would be beneficial in freshwater aquariums,

since freshwater is less dense than salt water, fine bubbles required to foam the water are not produced in freshwater and so unfortunately commonly available skimmers do not operate efficiently in a freshwater aquarium.

Following are some of the new skimmers now available.

## NEW! RED SEA C-SKIM PROTEIN SKIMMER



Brand new to the store are these innovative skimmers. They feature a unique neck washing system to easily clean the sludge from the collection cup without having to constantly remove the cup for washing. This is an excellent feature as the build up of sludge inhibits foam production and the cleaner the cup, the better the skimmer works. The skimmer also has a 'foam view' window to make adjusting the skimmer very simple. The pump delivers a maximum water throughput of 1200 to 1500lt/hr and a constant injection of 450lt per hour of air. Its pin wheel impellor constantly injects micro bubbles into the skimmer. By the time the water exits the skimmer, however, it is almost bubble free. Other features include: Can be run inside or outside a sump; a larger, external waste collection container can be connected with 40mm pipe; height is 54cm and footprint including pump is 34 x 25cm. Inlet connection is via 12mm hose and

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outlet connects via 90° elbow suitable for 40mm hose.

The C-Skim is recommended for a 1200lt aquarium when keeping fish only; a 700lt aquarium for a soft coral, invert and fish setup; and a 400lt tank keeping mostly hard corals with a few fish. The Red Sea C-Skim is priced at \$699.00.

Moving on from the top of the range, self cleaning model above, we also offer the **NEW MARINE SOURCES SKIMMERS**.

Available in both an internal and external model, this skimmer is recommended for aquariums up to 700 litres and is priced at only \$365.95 for the internal model and \$399.95 for the external. They feature a double reaction chamber which prolongs contact time

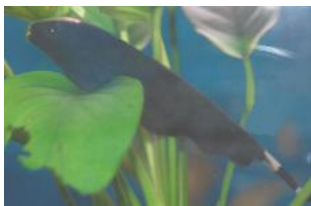


bubbles, a pin type needle wheel impeller, dual intake inlets, venturi air intake and an easily removable collection cup. The external model will require an additional feeder pump to direct water from the sump into the skimmer.

## **FRESHWATER FISH OF THE MONTH**

### **BLACK GHOST KNIFE FISH**

These beautiful fish originate from South America and whilst they grow up to 45cm in the wild but more commonly grow to



about 30cm in the aquarium. They have little eyesight but have a weak electrical sensor to locate food

etc. They are semi nocturnal and like plenty of roots and rocks for hiding places and subdued lighting. If you would like to see more of your black ghost, supply a clear plastic tube for it to hide in. The fish will feel secure as it can sense something around it, and you will be able to view him easily. Unusually these fish can swim backwards as fast as forwards, and swim with an undulating motion of the fins. They are relatively peaceful with fish of their own size or larger but can not be

trusted with very small fish. They are sometimes aggressive towards other black ghosts especially if kept in a very confined space. They eat frozen foods, especially bloodworms, chopped earthworms and small pellets. In time they may become tame enough to hand feed. It is said that South American Indians believe the souls of the departed take up residence in these fish, hence the name ghost fish.

Normally \$18.85 each these fish are now on **SPECIAL FOR ONLY \$13.95 EACH.**

## **CYCLOP-EEZE – Super Food for all Aquarium Life**

Cyclop-eeze is a freeze dried decapod, a ten legged microscopic crustacean which is selectively bred in arctic lakes. It has the highest natural concentration of the pigment Astaxanthene, found in the shells of crustaceans and a natural colour enhancer for fish. In addition to this, previously unknown levels of Highly Unsaturated Fatty Acids (HUFA's), especially those of the Omega-3 family, are contained in Cyclop-eeze, in fact levels 40 times higher than those in freshly hatched Artemia (Brine Shrimp).

Cyclop-eeze is used extensively in aquaculture for raising baby fish and invertebrates and can be mixed with normal food to improve colour and vigour in adult fish, both fresh and saltwater. It is an excellent invertebrate food being readily accepted by filter feeders such as corals, anemones etc. It is of interest to



note that Tubastrea (Sunshine Coral), normally a nocturnal feeder and notoriously difficult to feed, will open up to feed within a short time of Cyclop-eeze being added to the water. Highly palatable to fish, simply soak and mix with frozen food to feed fish or soak in water and pour into water current to feed invertebrates.

Available in 30g resealable tins \$39.95 and 100g resealable tins \$88.00.

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## **WAVE MAKERS**

Wave makers are devices to alternate water current in the aquarium. They can be used in freshwater or saltwater aquariums but are commonly used in the reef aquarium, where the coral benefits from the change of direction of water flow. Some, such as the SCWD below, can also be used in garden ponds where water flow can be changed between different statues, fountains etc. to create decorative effects.

The **SCWD** (Switching Current Water Director), pronounced squid, is attached to a power head or water pump to alternate current in different directions, simulating waves and tides. Priced at \$120.00, the SCWD is run entirely on the water pressure of the pump and does not itself need to be connected to electricity.



The higher the volume of water flowing through the SCWD, the faster the water will change direction. The

advantage of this simple device is that only one pump is required which runs continuously whilst the SCWD directs flow first through one outlet then the other.

Another, this time electrical version, is the **OCEAN PULSE DUO**. This is a device which can be connected to two powerheads (not supplied). This wavemaker is designed to replicate the natural alternating rhythm of tides and currents in the home aquarium. It creates a turbulent flow pattern with adjustable alternating cycle times from 10 seconds to 6 minutes. We would, however, recommend a longer cycle time of at least



1 minute to avoid excessive wear on the impellers of the pumps. A constant flow can easily be achieved without disconnecting the wave maker by simply rotating the dial. Exceptionally well priced at **\$99.00**

## **AQUASONIC OCEAN NATURE SALT**

Aquasonic is an Australian company which manufactures a range of aquarium and aquaculture products. Its products are sold here in Australia and exported extensively to many countries overseas. Ocean Nature Salt is a high quality artificial salt which duplicates sea water and can be used in all marine aquariums supporting even the most delicate corals. It has been manufactured right here in Australia for the last 35 years and is supplied, both here and overseas, for use in universities, aquaculture, public aquariums, commercial institutions, government departments and for home use.

Simple to mix, and quick to dissolve, tap water should first be treated with a chlorine/ammonia remover before mixing in the salt. This salt contains all trace elements present in sea water, even those in minute amounts which are often omitted in other brands.

The 10kg and 20kg sizes are now available in the smart new square reusable buckets for \$68.55 and \$113.50 respectively whilst the 2kg and 4kg sizes are in bags priced at \$16.90 and \$30.45. 1kg of salt mixes to 30 litres approximately of sea water.

## **RED SEA FRESHWATER LAB**

A must for all freshwater aquarists whether keeping tropical, coldwater, natives or cichlids. This superb kit tests for high and low range pH (6.2 to 8.6), ammonia and nitrite. pH tests the alkalinity of the water. Ammonia is given off in the fish waste and is also present in tap water and nitrite is the end result of bacteria breaking down ammonia. Both ammonia and nitrite are toxic to fish even in quite small amounts and it is important to keep a check on these levels. Brisbane tap water is relatively alkaline, around 7.3, and is tolerated by many fish, but a build up of waste in the aquarium can quickly acidify the water so again it is important to test the levels. This kit is \$35.15 and is good value when compared to buying separate kits.

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## **ALL IN ONE MARINE TANK**

Setting up a marine aquarium keeps getting easier with the advent of tanks with all the bells and whistles built in. Such a tank is the 128 lt Boyu HS-60 Aquarium and matching stand, which comes complete with metal halide lighting, filter and 1400lt/hr pump, protein skimmer, heater, nitrate reducer and uv sterilizer. The back of the aquarium is partitioned lengthways and all of the workings are built in to the back or hood of the aquarium, producing a very neat unit without pipes and cords hanging off everywhere. Tank dimension including hood and the back filter section is 513 long x 584w x 626h. The metal halide light has a 150W 14000K bulb and has fans built in to the hood which have a temperature sensor to detect when they need to turn on or increase speed and will turn off both themselves and the light if the temperature gets too hot! You do, however, need to choose your own fish! A chiller is not included. However there is provision in the hood for chiller inlet and outlet pipes. So if you have always longed for a marine aquarium but been put off by installing all of the equipment, then this is the setup for you. Total price including stand is \$907.00.

## **T5 HIGH OUTPUT FLUORESCENT LIGHTING**

**What does T5 mean?** T5 is the term given to narrow diameter fluorescent light tubes. Standard fluorescent tubes are known as T8 tubes. In the days of inches, diameters of tubes were measured by 1/8<sup>th</sup> of an inch – thus a T8 tube was 8/8ths, the old ‘fat’ tubes (T12) were 12/8ths of an inch, and thus a T5 tube has a diameter of 5/8ths of an inch.

### **What are the advantages of T5 tubes?**

Whilst standard T5 tubes are available, the best type for aquariums are High Output (HO) T5 tubes. These are available in the following sizes:

24 Watt 550mm 22”

39 Watt 850mm 34”

54 Watt 1150mm 46”

T5 lights have the advantage of a higher wattage in the same length tube, are up to three times brighter than a standard tube and penetrate deeper into the water than standard fluorescents. This means that they are more suited to keeping light loving species such as corals.

### **Are they as good as metal halide lights?**

Probably not in some circumstances, especially in very deep aquariums where the penetration through the water will be less than metal halides. T5s produce a ‘flat’ uniform light which some people prefer to the ripple effect of metal halides. Corals with very high light requirements, may still need to be ‘built up’ in the aquarium lit with T5s to achieve optimum conditions.

### **How many do I need?**

Of course this will vary, according to species kept, but a rough guide is a minimum of three 54W T5s to replace each 150W metal halide. Of course, many people run a combination of T5s and metal halides and this can be especially useful in hot weather when the T5s can be run without the metal halides to reduce temperature.

### **Can I run T5 tubes in my standard fluorescent lights?**

No. T5 tubes require an electronic ballast and in the case of HO tubes, a higher wattage ballast than standard fluorescent lights. You may ruin your tubes and/or your fittings if you try to do this.

### **Can T5 tubes be used in freshwater aquariums?**

Yes, depending on the spectrum of the bulbs themselves. ‘Blue’ tubes used for invertebrates will not be useful for freshwater use, but the bright white tubes can be used successfully for growing plants.

We currently have new aluminium reflectors with twin HO T5 tubes arriving in store. Prices are as follows:

2’ Reflectors with Twin 24W HO T5 \$105

3’ Reflectors with Twin 39W HO T5 \$115

4’ Reflectors with Twin 54W HO T5 \$130