

## The Return of the MWRF

**You asked for it – and it's back!!!**

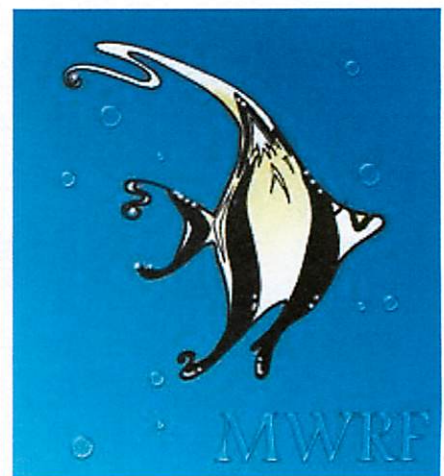
The Mountain West Reef Fest, or MWRF, will be coming back to Salt Lake City on Saturday, November 2<sup>nd</sup>, 2013. So, what's the MWRF, you ask?

The MWRF is a full day Marine & Reefkeeping Conference & Trade Show. It is an educational symposium where people can attend lectures and presentations from industry leaders, conservationists, authors, and scientists. It is also a trade show where hobbyists can buy the hottest new corals, rare and exotic fish and see new cutting edge equipment from literally *dozens and dozens* of vendors. Attendees can also give their feedback to manufacturers so they can continue to bring us the innovations we are looking for. There will be fun events like an Aquascaping Contest where attendees can vote for their favorite display. And there will also be a HUGE raffle; with hundreds of prizes – some worth *thousands* of dollars! And lastly, the MWRF is a social event. Many of the speakers, vendors, and hobbyists come to socialize with each other. The MWRF gives people an opportunity to put faces with names they might see on National hobby sites like *Reefcentral* or *Reef2Reef*, *Reefbuilders* or even friends you know from a local hobby message board like the WMAS Board.

For a look at past MWRF Conferences, just scroll down to the **Mountain West Reef Fest Forum** on the WMAS Message Board.

Tickets will be going on sale soon; so keep checking the WMAS Message Board Forums for details. I can promise you that the 2013 Mountain West Reef Fest will be the biggest and best one yet!

- Bob



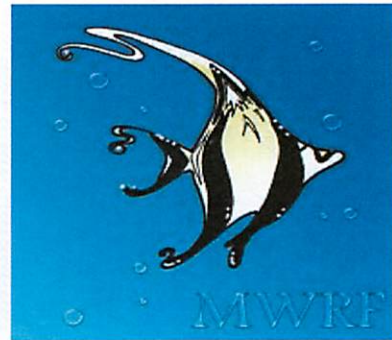
**WASATCH MARINE AQUARIUM SOCIETY**  
**www.utahreefs.com**





## Upcoming Events – Fall 2013

- **September** - WMAS welcomes you back with our Annual Fall Fragfest! We'll have tons of sweet coral frags, at prices starting at just \$10! **BONUS:** All WMAS Paid Members will get HALF OFF ALL FRAGS! **PLUS** – our famous Coral Colony Auction; where you can take home *whole coral colonies* at less than wholesale prices!
- **October** - It's Halloween Spooktacular Time! For 2013 we will be featuring the fantastic *Richard Ross* as our Guest Speaker. Don't miss our October meeting – with spooky fun for the entire family!



- **November** - This year WMAS is proud to bring back the one and only *Mountain West Reef Fest* !!! The *MWRF* is the Intermountain West's biggest Marine and Reef Aquarium Expo – with livestock, the latest equipment, great Guest Speakers, a huge raffle... and so much more! Get your tickets today!

**[www.mountainwestreeffest.com](http://www.mountainwestreeffest.com)**





## Choosing a Protein Skimmer

(cont)

With an in – sump skimmer, the choices are greater in design, size, and cost. Look to get the largest skimmer that will fit inside your sump (which is usually inside your tank stand) as long as you can afford it.

Things to look for in a quality skimmer are:

- **An energy efficient pump.** Look for a pump with a high LPH (liters per hour) air rating as well as low wattage. Inefficient pumps waste electricity, and can add heat into your aquarium water.
- **A large skimmer 'neck'.** The larger the neck diameter, the greater amount of air / water mixture the skimmer will process in a given time.
- **A tapered 'cone' design** generally is more efficient than a cylinder, as the cone creates less backpressure on the pump and allows use of a smaller pump to move the same amount of water.
- **An easily removable collection cup.** This is where the skimmate waste will collect and have to be periodically removed and cleaned. You don't want a hassle every time you have to remove the cup.
- **A quiet operating skimmer.** Ask if you can one in operation, if possible, so you can avoid purchasing a noisy waterfall for under your tank.

A protein skimmer is one of the most important pieces of equipment you will buy for your reef aquarium – especially if you want to keep some of the more exotic SPS corals, or stock your tank with a heavy fish load. Don't skimp on this! If you can't afford the right sized one new, look on our Message Board for a used model. Most used skimmers are in very good shape – and you can save up to 50% of the cost of a new one! Now, go out and get that perfect skimmer!

And Happy Reefing!





## **Choosing a Protein Skimmer**

By now most saltwater hobbyists have come to accept the fact that protein skimming is pretty much a necessity in any marine system. Along with this knowledge comes the uncertainty of what to buy and why. Let's outline some fundamentals to make this decision making process as painless as possible!

First, aquarists that have fish-only systems are going to focus on higher protein concentrations than reef-keepers in general. Those reefers that have sizable fish loads along with their inverts and corals will also want to target higher protein removal. Although it is common practice to do large water changes in fish - only systems, reef tanks rarely require water changes above 10 - 15% per month if utilizing live rock and/or live sand as primary biological filtration. As a general rule, reef tanks are maintained to more exacting water parameters than fish - only systems.

Maintaining a system that is as nutrient-free as possible is the goal of most reefers. Enter the protein skimmer. But how do you know you are purchasing the right skimmer for your system?

Matching your system's requirements to a particular skimmer usually involves things like reading the ads in hobby magazines, reading reviews and feedback threads on Message Boards, consulting with your local LFS, etc. Talking with other hobbyists that have or know of the skimmer you are contemplating is always a good practice as well.

Aquariums without a sump are more limited in skimmer selection, but there are several good brands out there for the HOB (Hang On Back) Skimmer. Companies like Tunze, AquaC, and AeroForce all make a pretty decent HOB skimmer. Keep in mind though, that all HOB skimmers are less efficient than the in - sump variety; so plan your system's bioload accordingly.





## Turning Your Aquarium into a Work of Art

(cont)

- **Repetition**: If you have a coral or fish that you really like and space allows, do not be afraid to have more than one. Repetition helps pull all elements together into one final creation.
- **Variation**: Having an assortment of fish and corals including different shapes and sizes is going to make your aquarium much more visually pleasing.
- **Contrast**: Consider what colors you are putting next to each other, colors that differ will help to make each other stand out.
- **Movement**: An aquarium should keep the eye moving around. Consider coral and rock placements as a maze for the eye and consider where the viewer should go next. Never direct the viewer out of the intended range of vision.
- **Balance**: Do not load all your corals into one area, as this may make your aquarium seem like it should be tipping. Also be aware of how to use "heavy" colors. A little bright red in one area can go a long way in creating a visual balance.
- **Emphasis**: Some aquariums have a "prize possession." Whether it is a fish, coral, clam, or something else - think about how to make it stand out and be noticed becoming a focal point for your aquarium.





## Turning Your Aquarium into a Work of Art.

by Camille Grimshaw

For many in the reef keeping hobby an aquarium is just an aquarium, something that interests them, and is something they enjoy. There are others see their aquarium as a work of art. A reef aquarium can become a living work of art, becoming an ever changing painting if elements and principles of art are applied. Many of these can happen naturally, but for those that struggle with their inner artist here are some ideas to help you become a "Marine Monet":

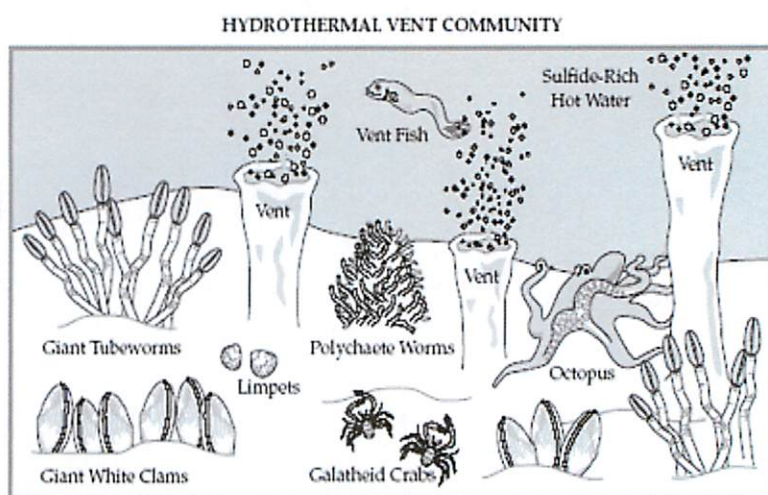
- **Form**: When working within the bounds of an aquarium, it almost takes on the quality of creating a 3D sculpture. Be aware how your placements look from various angles. Avoid having an aquarium that only looks good from one specific angle. Instead focus on multiple angles.
- **Space**: When placing items in your aquarium, especially rock, consider not only the actual space you are creating with the rock, but the space that is being created around the rock. Being aware of positive and negative space is equally important.
- **Texture**: Rock and corals make this element easy to achieve since each rock and coral naturally have a texture. Be aware of the different textures and strive to vary them next to one another.
- **Value**: Value is the lightness and darkness of an object. Think about ways to create both light and dark areas in the aquarium with things such as a light colored coral and a dark colored coral.
- **Color**: Color is important. An aquarium of brown coral and brown fish is not as interesting as a Crayola box of marine life. Color schemes can also be factored in to the tank as a whole, or in certain areas.





## Did You Know?

- The oceans contain 99 percent of the living space on the planet.
- Many fish can change sex during the course of their lives. Others, especially rare deep-sea fish, have both male and female sex organs.
- A group of herring is called a siege. A group of jelly fish is called a smack.
- Since the architecture and chemistry of coral are very close to human bone, coral has been used to replace bone grafts in helping human bones to heal quickly and cleanly.
- Horseshoe crabs have existed in essentially the same form for the past 135 million years.
- Alginates, derived from the cell walls of brown algae, are used in beer, frozen desserts, pickles, adhesives, boiler compounds, ceramics, explosives, paper and toys.
- The remains of diatoms, algae with hard shells, are used in making pet litter, cosmetics, pool filters and tooth polish.
- Hydrothermal vents, fractures in the sea floor that spew sulphur compounds, support the only complex ecosystem known to run on chemicals, rather than sunlight. Gigantic tubeworms and mussels thrive around these vents – at pressures that would kill a human.



## WMAS Find – A – Word

Try and locate all the hidden Reefkeeping terms listed under the Search Key below. Remember, the hidden words can be found on the horizontal, vertical, diagonal... even backwards!

Z	L	U	J	G	C	X	O	N	Q	B	P	S	A	L	T	Y
O	T	S	S	L	J	D	T	S	G	V	F	O	Z	U	R	S
L	M	A	O	N	K	N	K	O	L	O	B	A	D	F	K	P
T	M	W	D	U	J	A	D	K	L	I	G	H	T	S	D	S
W	N	H	A	F	K	S	W	T	E	W	A	K	M	W	R	F
F	R	O	G	S	P	A	W	N	J	W	A	N	R	Z	P	B
L	Y	L	L	A	F	Z	D	M	L	A	N	U	S	Z	D	R
F	X	A	U	P	L	Y	L	T	W	P	V	S	N	I	R	S
P	N	B	Z	C	V	C	S	L	P	L	H	S	E	A	E	T
M	F	U	Y	Z	N	E	A	H	I	R	Q	K	O	F	E	R
H	J	C	T	D	F	R	L	G	I	K	P	I	E	R	F	E
C	Q	S	P	G	O	A	H	M	A	H	X	M	C	A	E	V
E	B	S	A	C	F	T	P	U	S	T	C	M	O	G	F	N
T	Z	R	M	R	Z	T	G	I	T	Z	Y	E	T	S	F	I
O	F	L	P	C	O	D	F	H	S	I	F	R	A	T	S	J
C	M	P	B	Z	A	C	K	N	A	T	T	B	N	M	Q	S
E	D	S	R	Q	P	Y	K	W	O	Q	A	W	I	Z	G	G

CLOWN  
CORAL  
ECOTECH  
FALL  
FISH  
FRAGFEST  
FRAGS  
FROGSPAWN

INVERTS  
LIGHTS  
LPS  
MWRF  
REEF  
ROCK  
SALTY  
SAND  
SCUBA

SKINNER  
SNAILS  
SPS  
STARFISH  
TANK  
UVLIGHT  
WET  
WMAS  
ZOA





## **Species Profile: Anthias**

(cont)

### **Anthias Care:**

Optimal "reef" conditions are required. Anthias do best in absence of aggressive tankmates. Anthias are very easily spooked on new introduction. Keep the lights low for a day or two. Keep your hands out of the tank the first few days. Some species are notorious jumpers. Cover all openings. Watch other fishes for aggressive behavior toward your new Anthias, and separate if needed.

Most of the shallow water species live in areas of tremendous wave action. They appreciate vigorous water flow.

Feeding your Anthias can prove to be a challenge. Most species need to be feed multiple times a day, as their feeding habits and high metabolism require a semi – constant food source. Consider an automated feeder if you can't be around to feed at least 2 – 3 times daily.

Try to find a local expert who can mentor you on the best way to care for your Anthias. Here at WMAS, we are lucky to have in our midst Member Brad Syphus, aka "tileman", who has successfully kept some of the more delicate and challenging Anthias *spp.* long term. Brad houses them in his awesome 335 gallon Reef, along with several rare wrasses and angelfish. It's a real treat to see Brad's tank in person – even if you are not an Anthias buff!

Lastly, remember that Anthias are a standard food item for almost all predatory reef organisms big enough to stalk and catch them. Larger predators will devour them, so avoid placing your Anthias in a tank with fish such as Lionfish, larger groupers, large eels, etc.

With careful attention to housing, water quality, and feeding, Anthias can be a wonderful addition to most medium to larger sized reef aquariums.





## **Species Profile: Anthias**

by Bob Carlson

Anthias are a group of small colorful shoaling fishes. In the wild, they exist in tropical reefs in the Red Sea, Indian and Pacific Ocean. Their habit extends from shallow reef areas to a few hundred feet down the reef structure. They generally reach an adult length of three to six inches, depending on the variety.

Anthias are considered a desirable reef fish due to their beauty and schooling nature. Unfortunately, they are also the least hardy members of their parent family of sea basses. There is a wide range of rarity, cost and variability of temperament within the group; the different species available should be investigated thoroughly before deciding to try and keep some of them. All are considered "challenging" fish to keep.

In the wild, Anthias live in large colonies with a definite pecking order that is not replicable or desirable in captive care. If you want to buy a colorful male, only buy one. Two will fight, almost always to the death of the weaker one. Similarly, unless you have a very large tank, more than one (or two) females is unnecessary and may well lead to endless fighting and loss. If you lose your male, the next most dominant female will in time change sex to take its place.





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### Welcome Back!

As summer quickly fades into a memory, and we break out the lunchboxes and backpacks for the kids to take to school, that can only mean one thing... Fall is just around the corner! In this edition of the *SeaStar Quarterly* we here at WMAS welcome you back indoors... to the wonderful world of Marine Aquariums and Reefkeeping!

Fall traditionally is a strong time in the reef aquarium hobby, as people start to taper off on the outdoor activities and return to maintaining their reefs. Your LFS starts to see increased foot traffic and sales, and that leads to them ordering in a greater variety of livestock and dry goods. It is also a time when manufacturers introduce new or updated equipment lines at major events like MACNA (Marine Aquarist Conference of North America).

Here at WMAS, fall is a time to celebrate some great Club Events like our Halloween Spooktacular and the Mountain West Reef Fest! And we start off the fall fun with our annual Fragfest in September.

Stick around as we preview all the great things to come at WMAS this fall!





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# *The Sea Star Quarterly*



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aquarium  
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