

Idaho Reefer

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Special points of interest:

- Raft Trip and Frag Swap
- Keeping your tank cool
- Water Movement
- Lighting your reef tank

How to keep your cool

Dang it is hot!!

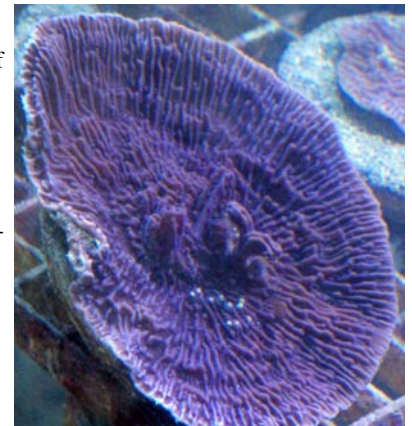
By Kim Gross
Jen's Saltwater Haven

With the hot months of summer here everything is running a little hot including many aquariums. If you have a reef tank the heat problems can be even worse due to the heat from the lights and all of the powerheads used to create enough current to keep those corals of yours thriving.

The first question is how hot is to hot. There is a lot of controversy on the answer to this question first the ultimate high temp might not be as important

as the amount the temp changes from cool to hot. If your temp is going over 85 degrees most people will say it is to hot, or if you temp is changing by over 4 degrees from the cool morning before the lights come on until mid afternoon you are to hot.

So what can we do to regulate the temp to keep it from overheating and to keep the temp stable? There are many ways to regulate and stabilize the temp. If your problem is an unstable temp sometimes the simplest cure is to just raise the set point on your heater(s). If your high temp is less than 80 to 82 degrees just raise the temp on your heaters a degree or 2 and



One of the editors Idaho grape frags that could be at the swap!!!

see what happens. If your temp stabilizes and does not go above 82 degrees I would say you solved your problems.

Now if your problem is that your tank is overheating, there are many things you can do to lower the temp of the tank starting from no cost/low cost

Raft trip and Frag Swap/BBQ

Saturday July 16 will be a Raft trip and Frag swap. Both events are open to everybody. For the Raft trip the cost is \$35 per person for non club members and \$28 for club members the trip will be handled through Cascade Raft lo-

cated on HWY 55 north of horseshoe bend. To attend you will need to meet us at Cascade Raft at 9:30 If you plan on going please RSVP Scott Morell at smorell@cableone.net as soon as possible. The frag Swap/BBQ will be held at

the ICRMP building at 5:00. Cost for the BBQ is \$2 per person \$5 family for members and \$5 person \$10 family non members. Bring your frags to sell/trade. For more info you can call me Kim or Jen Gross at 461-8183

Frag Swap details

The frag swap is open to anybody and everybody the more people that show up the better it will be. If you do not have any frags to trade there should be quite a few for sale also. Not only are coral frags welcome but so are any other livestock. You will need to have everything that you have to sell or trade bagged up in individual bags ready for the new owner to take home. If you have a large colony that you want to frag at the swap, you should be able to find some help, but it is best to frag and allow the frags to heal for a few days before mov-

ing them into a new tank. Any deals you make are between you and your customer.

IMAS is not responsible for any deals that do not go the way you would like them.

Please bring your frags in some type of an insulated cooler or Styrofoam box. The building will be air conditioned but it could still be a little warm. For more info

please drop a message on the web site www.idahoreefs.org. Kim Gross



A small coral frag from Jim Turnboughs tank

Where to go for help

On the Net

I wanted to take some time to give people some great resources on the internet to find out information on your saltwater fish or reef tank. The first web site I would suggest to you is our local club site. www.idahoreefs.org. There is a message forum setup so you can ask questions. Most questions are answered by somebody within a few hours. The next site I would suggest you try is www.reefcentral.com.

Reefcentral is I believe the largest saltwater/reef web site. There are many different forums grouped in many different categories. Another large site is www.reefs.org. There are also some smaller sites that have great info on them including reeffrontiers.com, and reeflover.com. There are also some great informational websites like fishbase.org, and seahorse.org. One thing to remember about all information you receive on

The BBQ/Frag Swap will be a great fun event for everybody.

the internet. There is nobody making sure that the information is good info so you will want to spend some time on the site and see if you can figure out who to listen to.

Kim Gross

August 9th Club meeting

August IMAS club meeting

August 9th is the date for the next IMAS club meeting. The meeting will not be held at the normal meeting place of the ICRMP building, instead it



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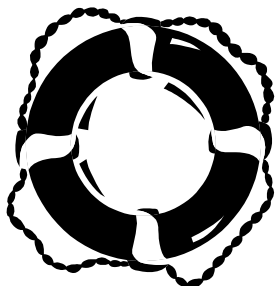
will be held at the Moxie Java and More at 5 mile and Overland. It is on the North West side of the intersection. Since we will not have the facilities to do good presentation we would like you to bring a gizmo or gadget that you find

very useful for your aquarium so we can see and discuss it. We should also have time for a Q & A section during the meeting. After the meeting we are hoping to setup a tank visit since the meeting place is very close to a few peoples tanks like Jim Turnboughs 120 and 125 gallon reef tanks.

Heat continued

to pretty expensive. In the no cost range you can change your lighting schedule to have your lights on in the evening rather than during the day when it is the hottest. This way the heat from your lights is not adding onto the hottest part of the day. Sometimes this is even better for you. If you work all day you don't have the lights on, they are on when you are available to see the tank. Now of course if your tank is in some type of a business this is not the best bet.

The next low cost solution does have trade offs. Evaporation is a great cooling system for your aquarium but it will increase the amount of top off water you need. IF you have some type of an auto top off system it is a very effective way of controlling your tank temperature. So if you have covers of your tank remove them, this will allow more water to evaporate cooling your tank. If you have a sump open the doors to your stand allowing more airflow into the sump. If this passive cooling does now work well enough to keep your tank cool, you can add fans to increase the air movement over the surface of the water, increasing the evaporation. You can get a simple less than \$10 clip on fan and clip it onto the side of your



Together we can save a lot of livestock

sump blowing air across the surface of the water, this will greatly increase the evaporation in your tank, but it does cool a lot. I have seen 125 gallon reef tanks temp drop 3 plus degrees with the addition of a small fan on the sump. If this still does not make enough of a difference and you have a closed canopy over your tank, prop it open to allow some airflow through the canopy. You can also set a fan to blow into an opening on your canopy and across the water to increase evaporation from the tank itself. It will normally cost a little more but you can mount either a computer fan or an aquarium fan in the side of your canopy to blow more air across the water. These fans can be purchased from a computer store, radio shack or most aquarium stores. One downside to a computer fan is that they normally operate on 12 volts so you might have to find a dc adapter to power the fan with.

There are a couple of really nice aquarium fan kits on the market, both Icecap and Coralvue manufacture a fan kit that includes a 12 volt dc adapter and a thermal

switch that allows the fan speed to vary with the temp in the tank. Both of these fans are great to work with. The Coralvue fans run around \$35 while the icecaps are closer to \$50, but prices will vary.

If you mount multiple fans in your canopy the best way to mount them if you have open areas in your canopy for air exchange is to mount them both blowing into the canopy. If you have one blowing in and one blowing out if both fans are moving 300 cfm of air. You will only have around 300 cfm of airflow in your canopy, if both blow in you will have 600 cfm total airflow in the canopy. Plus the other big benefit is that you will not be sucking hot humid air through the fan. The hot humid air is very bad on the fan and will shorten the life of the fan considerably.

Moving up the price scale is a chiller or a window air conditioner. Either of these will set you back normally \$300 or much more depending on the size of the unit. Personally, I would suggest the window AC over a chiller just because it moves the heat out of the room rather than from the tank into the room (unless you can mount the chiller outside.) If you can keep the room temp below 75, normally you will not have any

Water Movement

Water movement is very important to the health of your corals. Corals are animals and as animals they need the water to bring food and oxygen to them as well as take Co2 and waste products away. If you do not have enough water movement your corals will start to die from the areas that do not get enough flow first. Many times you

can loose the whole colony from the inside out. What is good water movement?

Good question. A good starting point is 5 x your tank volume an hour minimum with higher flows being even better. Look for a more

in-depth article coming out in the next few months. Kim Gross



This is a big pump

Idaho Marine Aquarium Society

Regular meetings held on the second Tuesday of the month at 7:00PM at the ICRMP building basement classroom. The ICRMP building is on the corner of Vista and Sunrise Rim just off of the free way at the vista ext.

Take the vista exit head downtown, turn right at the first stoplight after the freeway and pull into the parking lot on the left.

Responsibility through education

We're on the Web!
www.idahoreefs.org

The Idaho Marine Aquarium Society is a non-profit group dedicated to responsible aquarium keeping through education. All of our meetings are open to the general public. Our goal is to help you have a successful aquarium. For more info on the club please visit our web site at

www.idahoreefs.org

If you have any article suggestions or submissions please feel free to contact me at kgross@jensalt.com We are always looking for articles from other hobbyists!

Heat Continued

problems keeping the tank below 82 degrees. A chiller if it is large enough, will keep your tank cool even if the room is over 90 degrees .

There are many other cooling solutions that you can use including installing central AC in your house and turning the temp down lower, installing some type of geothermal cooling (which I hope to do this summer some time for my tanks) or many different DIY cooling systems. One thing I will say most DIY cooling devices that are based on small freezers or refrigerators do not work very well. The units are not designed to remove lots of heat they use good insulation to keep stuff cool while the slowly remove a small amount of heat

There are other things you can do to cool your tank without adding a cooling device to your system by removing items that add heat to your system. First cut back on your lighting, this might not be the best for your

corals though depending on what corals you have and how much light you have. Replace submersible pumps/powerheads with external fan cooled pumps. I have seen systems that removed on mag 12 and replaced it with a little giant external pump and the temp dropped by 3 degrees. If you have lots of powerheads in your tank consider replacing most of them with a closed loop powered by an external pump. If you don't want to or can't go to a closed loop setup replace the normal powerheads with a stream type pump, either the tunze streams or the RIO SIEO pumps. These pumps are quite a bit more expensive than a normal powerhead but they do move a lot more water at a much lower power rating so they will heat the water a lot less. You can remove 2 or three med to large sized powerheads and replace them with something like a RIO SEIO 1100 and move more water with less than 1/2 the electricity and heat. Just remember that if you are having heating problems and do anything to increase the evaporation rate of your tank, keep an eye on it. I have seen 55 gallon reef tanks that will evaporate over three gallons a day. If this water is not replaced daily the salt concentration will increase at a very quick rate and could be deadly to your tank. Or your pumps could run dry causing trouble also. One very important thing with tank temp is water movement. If your tank is hot and you have very little water movement your corals will have a lot more stress than if the tank is hot and you have lots of water movement.

I hope that this helps now that we are in the dog days of summer. If you have any questions on this fill free to drop me an email kgross@jensalt.com