

# Sea Star



## WHAT'S INSIDE?

- 1 Throw the Dice
- 2 February Meeting Recap
- 3 At a Glance: The Orchid Dottyback
- 3 Diving the Egyptian Red Sea
- 9 Suspending Your Reef
- 12 Sushi – A Beginner's Guide
- 13 Avoiding Disaster
- 13 Coming Attractions

If you have questions about the Sea Star or to submit an article contact Shane Heil

E-mail: [shane.heil@autoliv.com](mailto:shane.heil@autoliv.com)  
Telephone: (435) 720-2599  
Message Board: Shane H

## Throw the Dice – Buy a Fish

By Shane Heil

Have you ever had a streak of bad luck? A time when it seems like no matter what you did, you just couldn't get it right? Well, I have been having a run of luck when buying fish that is anything but favorable. I've decided that selecting long lived fish is just about as consistent as shooting dice.

Let me share my selection technique and you determine if my method is flawed or if I'm just plain unlucky.

1. Plan ahead. I generally research a fish if I'm not familiar with its husbandry requirements. I look to see if it will be compatible with my existing fish population, I confirm that I can adequately feed it, I guarantee that I have the necessary space.
2. Observe. When at the LFS, I spend time observing the fish I'm interested in buying. I pay attention to its behavior towards other fish, I make sure it is vibrant and not too skittish. I pass over any fish that is scratching or hiding incessantly.
3. Feed. I ask to see the fish eat. I confirm it is aggressive and active when food is in the water. Most fish will eat when food is available. If a fish fails to eat, I will normally let it stay at the store.
4. Wait. Often, I will ask the LFS to hold the fish for me. This extra time guarantees the fish is healthy and no parasites become apparent while at the store. A period of 2 to 5 days should be sufficient to confirm the health of the fish.

There you have it: my selection method. It seems fool proof. Why then should I ever experience premature mortality in a fish I have selected? Why would a fish, after passing my four point test, die within days or even hours after being placed in my tank with other perfectly healthy fish?

I thought you might think acclimation is to blame. But I can assure you that I carefully acclimate all new fish before introduction. I turn off the aquarium lights to lessen the stress of the new fish; sometimes I even move rocks around to lessen the inevitable territorial dispute. Acclimation cannot be the culprit.

Please don't think I kill all the fish I bring home. But, based on the criteria above, I shouldn't lose any – but I do. The point is; despite my best efforts to carefully select the best specimens, create the perfect environment and thoroughly acclimate fish – I occasionally lose them. We all occasionally lose them. Unlucky? Maybe. Frustrating? For sure. But, part of the thrill of the hobby is the challenge to be successful. So, do your best to choose wisely and go ahead - throw the dice!

## Did you know ?

*Netting and removing fish from the water induces an acute stress reaction that can take days for them to recover from.*



## February Meeting Recap

*By Adam Blundell*

Meeting Date: 07-Feb-08 Attendance: approx. 60

This was the WMAS's second annual Valentine's Banquet event. We like to hold this event in February as a pseudo-Valentine's dinner date. Thanks to Sukie who let the attendees take the centerpiece flowers and give them to our spouses... whew, and I thought I would need to buy something this year.

Special thanks to Jake Pehrson and Flowerama for donating the flowers for the event.

### Tank of the Month-

This month we featured the aquarium of Dave and Heather Anderson (dca22anderson). This aquarium is a 750 gallon tank! Yep - 750 gallons, plus two 180 gallon sumps, plus two 55 gallon frag tanks. That is one big system!!! One interesting item regarding this tank was how eco-friendly it was. Using Utah rock, this tank has little frags (purchased from our club fund raisers) and grown them into corals the size of basketballs. This is a very impressive large tank.

### Guest Speaker-

This month we brought in Dr. Fred Lipschultz. Dr. Lipschultz works in the governmental side of coral reef research. He has a PhD from Harvard and after years of field work he now serves as a Senior Scientist for government panels. As he describes it, he lives in D.C. and decides how to spend our tax money. He has done extensive work and has experience in carbon testing (CO2 levels) and the relationship of Carbon/Acidity and Global Climatology.

Dr. Lipschultz's presentation began with a review of some common reef inhabitants. This included angelfish, butterfly fish, sea stars, lobster, corals, etc. It was great to see some pics of animals in the wild and to learn more about their natural behavior.

The second half of the presentation focused on Dr. Lipschultz's specialty; the changes in environment and how those changes will affect coral reefs. Two main areas of concern were discussed; CO2 levels in the atmosphere and how that will dissolve into sea water and warming of water temperatures.

### Door Prize-

Thanks to Richins Carpentry (owner Dion Richins aka Holdencraft 33) we had a complete turn-key aquarium to give away. This 14 gallon all-inclusive nano had the tank, sand, rock, and even some frags (donated by WMAS presidency members). The lucky winner was Kristy Spencer! who then explained that she wasn't letting Will have another tank... so the next winner was our very own guest speaker Fred Lipschultz.... who politely declined to win the tank... and up next; yep you guessed it, Adam Blundell won. I declined the tank on one condition, that they don't draw Jake's name as a winner. So finally, good ol' Brian Beck came away with a win. Be sure to post pics Brian. Thanks again to Dion (Richins Carpentry) for the donation.

### Next Month

Next month, we'll be having our first-ever WMAS game night!



## At a Glance: The Orchid Dottyback

By Mike Savage



The *Fridmani pseudochromis* also known as the orchid dottyback is a great choice for your community reef tank. It has a vibrant purple body just under three inches long with a black stripe through its eye. The orchid dottyback is reef safe and needs live rock to hide and shelter in. It will not bother your clams or corals, though it is carnivorous and will eat small bristleworms and very small shrimp. It will take prepared foods readily with meaty foods being best.

This dottyback is one of the most peaceful in its genus but will vigorously defend its shelter - even against much larger fish and shouldn't be kept with firefish or other dottybacks. Some people have had problems with them and gobies housed together; mine gets along with my rainford goby just fine.

I have found this to be a very hardy fish with vibrant color that does not fade (unlike the magenta dottyback) and a hearty eater. This fish would be a good choice for larger nano tanks but probably shouldn't be kept in less than 20 gallons. If you have a large tank of 120 gallons or more then you should be able to keep more than one if they are introduced to the tank at the same time.

The orchid dottyback has been successfully bred in captivity and it is relatively easy to find aquacultured individuals. If you are interested at trying to breed them yourself, you should check out Martin A. Moe's book *Breeding the Orchid Dottyback, Pseudochromis Fridmani: An Aquarist's Journal*. I've not read it but it has gotten good reviews.

## Diving the Egyptian Red Sea

By Asad Mohyuddin

Ever since I can remember, I have been fascinated by the ocean. Living inland in Utah so far from the nearest shoreline made me miss the ocean so much that I took on reef keeping as a hobby. Over the past years, I have learned a great deal about marine life, but this has only served to whet my appetite to visit the oceans of the world and explore the fascinating life therein.

In September 2007, I met a couple of travelers from France while on a dive trip to Belize and they told me about their visit to Sharm El Sheikh in Egypt. Prior to this, I always associated Egypt more with antiquities and the pyramids rather than a world class dive destination.

After returning to Utah, I did some research and found that it is not particularly easy to get to Sharm El Sheikh. This city is located at the southern tip of the Sinai Peninsula that divides Africa from Asia. Just a couple of hours drive north is the little village of Dahab that gets mostly backpackers and hardcore divers. Many reefs in Dahab are in still in pristine shape while those in Sharm have suffered due to heavy tourism.



Map of the Sinai Peninsula  
(courtesy of <http://www.romanvirdi.com>)

There is no direct flight from the US to Sharm El Sheikh. One has to either go through Cairo and onwards to Sharm or to Europe and then a direct flight to Sharm El Sheikh. I chose the latter route and flew to London and then to Sharm El Sheikh. The Flight itself is a little over four hours and is very interesting. The route goes over the English



Channel and then the European Alps onwards to the Adriatic and Mediterranean coast line of Italy, Croatia, Albania, Greece and Crete among others. The flight over the Sinai Desert is quite amazing as well, with fascinating canyons and rock formations. At the end of the red sand desert lie the blue waters of the Red Sea.



Flying over the Italian Alps



The Greek Mediterranean Coast



The Sinai Desert from the air

After landing in Sharm El Sheikh on a comfortably warm November evening, we took a taxi and headed straight to Dahab. The drive was about an hour and a half and we went through the desert at night. We got to our hotel late at night. The hotel is located on the ocean front and right by the promenade that meanders its way along the shore line. There are sea side Bedouin style restaurants and bazaars lining the promenade where you can shop or sit down and enjoy a hot cup of Bedouin tea while smoking Shisha (an elaborate Egyptian style Hookah with flavored tobacco) and enjoying the beauty of the red sea.



The view from the hotel



Promenade in Dahab



Dahab at sunset



Dahab at night

The diving and snorkeling in Dahab is the best I have ever experienced. The visibility was amazing even when the wind kicked up. Most days I would go snorkeling in the morning and dive in the afternoon and night.

All diving in Dahab is shore diving. Most dive and snorkeling sites are characterized by a shallow entry spot and then a sheer drop of 50 or 60 feet. This creates a wall of coral starting with the hard corals mostly at the top and the soft corals and gorgonian towards the bottom. One can see numerous species of acropora, pocillopora and porities as well as bubble tip anemones, sargophyton and clams.



Preparing to dive in Dahab



Shore diving in Dahab



Getting our teeth cleaned in Dahab



Full moon over the Red Sea - taken with a long exposure  
The lights in the distance are Saudi Arabia

---

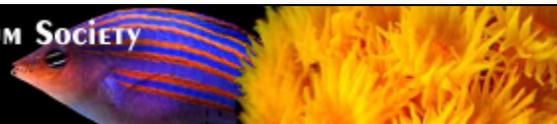
### Did you know ?

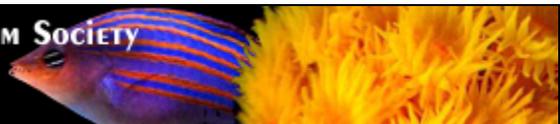
Although the waters of the Red Sea run quite deep, temperatures are moderate. The water is warmed by volcanic heat emanating from the sea bed.

---



WASATCH MARINE AQUARIUM SOCIETY  
www.utahreefs.com





The shallow waters also had a wide variety of fish life including many varieties of surgeon fish, trigger fish, angel fish, wrasses, parrot fish, groupers, anemone fish, scorpion fish and butterfly fish among others. There were more anthias than you could shake a stick at.



A lion fish in Dahab



A basket star photographed on a night dive



Naama Bay at night



Naama Bay waterfront



Mall in Naama Bay

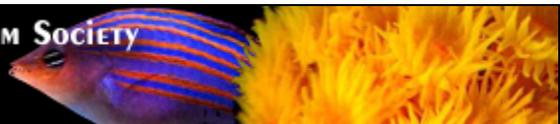
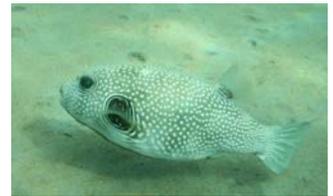
After staying in Dahab for a week we drove back to Sharm El Sheikh. The atmosphere is completely different. While Dahab is laid back and relaxed, Sharm is a town bustling with tourists and has a great night life.

The main "hang out" in Sharm is Naama Bay. It is lined with souvenir shops, open air restaurants and night clubs. This is the Red Sea vacation most people experience. Sharm is a great place with something for everyone. For divers, the nearby Tiran Island and the world famous Ras Mohammed National Park are great diversions. Unlike Dahab, most diving in Sharm is via boat since a lot of the dive sites are located further off shore. There are some world famous wrecks like the Thistlegorm just a short boat ride offshore.

I took a couple of trips out to Ras Mohammed. The diving is great but the snorkeling is not as good as in Dahab due to the large number of visitors. You can count on being in the water with quite a few other people and sometimes you see more people than fish. Most people in the water were absolutely clueless about not stepping on or touching coral. To my dismay, none of the dive masters explained these precautions before letting people in the water.

Tragically, a lot of the coral in the shallow water was under distress. I saw huge tables dead or dying. Huge sections of acropora skeleton littered certain locations. Looking at it made me think of how the dead section of the reef would have looked like when the reef was thriving. Perhaps it looked like the reefs I saw in Dahab. I felt privileged to have seen the relatively unspoiled reefs in Dahab. But, I could not help but wonder how long that would last.

Despite this, I saw some interesting things while diving. Ras Mohammed is known for the large pelagic fish that can often be seen here. I saw large schools of barracuda, unicorn tangs as well as sailfin tangs, massive parrot fish, large triggers, lion fish, groupers, some very large moray eels and of course the ubiquitous anthias. I also observed several different types of leathers as well as anemone fish with their anemone hosts.





En route to Ras Mohammed National Park



The streets of Sharm El Sheikh at night

Overall the trip was amazing! Seeing coral in a beautiful reef tank is one thing, but observing it in the ocean is a magical experience second to none. Before this trip, I had mostly gone snorkeling and diving in the Caribbean where the reefs are mostly dominated by gorgonian and sponges and very few - ever shrinking - areas with staghorn and elkhorn corals. Seeing the colors and varieties of hard and soft corals in person in the Red Sea is something I will never forget. I would definitely recommend it.

## Suspending Your Reef

*By Eva Rushton*

More and more stingrays are being desired by aquarists. The problem often encountered is the amount of room these magnificent creatures require. Typically a 125 gallon aquarium is the absolute minimum for keeping any kind of stingray. Even though this may seem like a lot, it is not nearly enough for an adult ray. Most rays require at least 180 gallons with at least 5 feet of swimming room across the tank. Vertical height is less important to a ray but is valuable to the owner when the reef starts several inches above the bottom. For this reason a 210 may be preferred to a 180. The suspended reef gives an open sand bed feel with a reef look. This compromise is ideal for many ray keepers. The rays enjoy the extra room to swim and a darker place to sleep.



Construction of a suspended reef is surprisingly easy and takes little time and money to set up. A good layout is key before beginning the project and will make things go much smoother. The first step is to measure the aquarium and determine how much room the reef will occupy. It is important to put the rays' needs first and keep the tank as open as possible.

For my first ray tank I had a 125 with a footprint of 60"x18". It wasn't long before this was too small and I bought another tank. In the mean time, I set up a suspended reef in the 125 gallon to give him as much room as possible while the new tank was being set up. The 125 has a center rear overflow so I had to make 2 sections. For the new tank it was a lot more difficult to build the reefs but also easier as the tank wasn't stocked. My new 180 gallon tank has dual end overflows. The reefs for this tank are built around them.

Suspended reefs can be made to fit just about any style of tank. There are two ways of making the structure. One uses egg crate to



support the rockwork. The other uses cross sections to support the rock work. Both work well. The decision is made by the size of the rocks to be used and the layout of the reef. The egg crate supports all sizes of rocks, plus frag plugs can be wedged in the slots. However, the cross sections allow fish to swim up under the reef rather than just through it. The important thing to remember is to plan ahead. Make a sketch of your tank and figure out what pieces you will need to construct the structure that is right for your tank.

### Here's What You'll Need

- **PVC Pipe (1/2 inch)**
- **90° Elbow Joints**
- **"T" Joints**
- **Couplings**
- **Egg Crate**
- **Zip Ties**
- **PVC Pipe Cutters**
- **PVC Cement (optional)**



#### **Assembly Using Egg Crate:**

##### Step 1

Frame out how you want the shelf using the pvc and elbow joints. Then add the T joints for legs. Remember that the joints add about an inch for each joint to the total length.



##### Step 2

Place the framed PVC in the tank to make sure it fits correctly. The PVC floats so it will need to be tipped so water can fill the pipes.

##### Step 3

If the PVC is the correct size (glue now if desired) cut the egg crate to fit over the top and zip tie around the edges to secure it to the PVC.



##### Step 4

Cut the legs to the desired height. Remember there will be sand in the tank and the legs should go all the way to the bottom of the tank. (If you have a 4" sandbed and want the reef 4" above the sand the legs should be 7" as the coupling adds an inch) Put the couplings on the end of each leg to give for extra support as you probably won't cut the pvc perfectly.



##### Step 5

Put the whole thing in the tank and let it fill with water. Put a couple rocks on it to hold it down.



##### Step 6

Admire a job well done.

**Assembly Using Cross Sections:**Step 1

Frame out how you want the shelf using the pvc and elbow joints. Then add the T joints for legs and crosses. Remember that the joints add about an inch for each joint to the total length.

Step 2

Place the framed PVC in the tank to make sure it fits correctly. The PVC floats so it will need to be tipped so water can fill the pipes.

Step 3

If the PVC is the correct size (glue now if desired) Cut the legs to the desired height. Remember there will be sand in the tank and the legs should go all the way to the bottom of the tank. (If you have a 4" sand bed and want the reef 4" above the sand, the legs should be 7" as the coupling adds an inch) Put the couplings on the end of each leg to give extra support as you probably won't cut the PVC perfectly.

Step 4

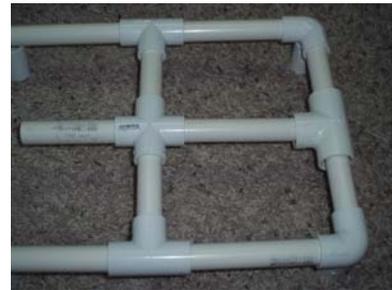
Cut the legs to the desired height. Remember there will be sand in the tank and the legs should go all the way to the bottom of the tank. (If you have a 4" sand bed and want the reef 4" above the sand the legs should be 7" as the coupling adds an inch) Put the couplings on the end of each leg to give for extra support as you probably won't cut the pvc perfectly.

Step 5

Put the whole thing in the tank and let it fill with water. Put a couple rocks on it to hold it down.

Step 6

Admire a job well done.



Lastly, now that the suspended reef is built, the rocks can be aquascaped around them. This can be done in or out of the tank. I prefer to do it in the tank as if I get it where I want it I don't want to have to move it and hope to get it back there. Zip ties work great for attaching branch rock or long rubble to the edges of the reef. In time the PVC will be covered in coralline algae and will look like part of the reef.

---

### Did you know ?

Polyvinyl chloride (PVC) was accidentally discovered on at least two different occasions in the 19th century, first in 1835 by Henri Victor Regnault and in 1872 by Eugen Baumann. On both occasions, the polymer appeared as a white solid inside flasks of vinyl chloride that had been left exposed to sunlight.

---





## Sushi-4-U; A Beginner's Guide

By Jake Pehrson

For some unknown reason a considerable amount of "Fish People" (that's you and me) not only like to keep fish but eat them as well. One of my favorite meals is a trip to the sushi bar. For the most part when I mention sushi I get two different reactions: Yuck or Yum. Many people in the Yuck category have never tried sushi (or have only tried it once) and many are turned off by the thought of eating raw fish. I don't claim to be a sushi expert, but I do own a dozen sushi books, have taken a sushi course from a "Professional" *Itame* (sushi chef), and eat sushi 3-4 times a month. Although it would be impossible for me to write an entire introduction to sushi eating (at least for the Sea Star), I have put together a list of bullet points in an attempt to get those newbie sushi eaters started.

### First Time Sushi Advice / Sushi Information

- ☛ Relax, you should enjoy your experience. Nobody is going to make fun of you. Let the waiter or *Itame* (sushi chef) know that you are a "novice". They can offer advice on etiquette and good starter rolls. If possible, I recommend you take somebody with you to "show you the ropes" (I am always up for a trip to the sushi bar).
- ☛ You don't need to know all the sushi terminology, so don't worry about it.
- ☛ Go with a group and try to taste everything. You should find at least one item you will like.
- ☛ Try an order of Edamame (young soybeans). It's not sushi, but it is good and healthy.
- ☛ There are a few types of commonly ordered sushi. *Makizushi* (rolls), *Temakizushi* (hand rolls) and *Nigirizushi* (hand formed rice usually topped with *Sashimi*), *Sashimi* (raw fish).
- ☛ You will be presented a few of things at almost every sushi restaurant.
  - Chopsticks – To eat your sushi (although you can always use your fingers)
  - Pickled Ginger – To cleanse your pallet.
  - Soy Sauce – to dip your sushi if you so desire.
  - A little bowl or dish – to hold your soy sauce for easy sushi dipping.
  - Wasabi – Japanese Horseradish to add some "kick" to your soy sauce or sushi.
- ☛ Nori (yes, the seaweed we feed our Tangs) is included in almost every sushi roll and is somewhat of an acquired taste. Inside-out rolls (rice on the outside, nori on the inside) are often more palatable to beginner sushi eaters.
- ☛ Not all sushi is raw (or fish for that matter). In fact there are many sushi rolls where the meat is fully cooked and there are even some that are vegetarian (fish free). Rolls with shrimp (*ebi*) or crab (*kani*) are good starter rolls and are usually fully cooked.
- ☛ Try an inside-out California roll it usually has cucumber, crab (cooked and usually fake), and avocado). Although this isn't my favorite roll it has "beginner" written all over it.
- ☛ Sushi can be expensive (especially in Salt Lake for some reason). Some sushi restaurants offer ½ price sushi for lunch.
- ☛ If you have had sushi before and didn't like it, try again. I really didn't like sushi all that much my first time, but now I can't get enough.



## Avoiding Disaster – 15 Minutes of Prevention

By Sea Star Staff

In another attempt to share some of the invaluable information contained in threads compiled by WMAS members, we have chosen to remind our readers about the very real threat of electrical fire. If you have a reef tank, then you likely have a rat's nest of power chords running to and from your aquarium. Additionally, you are likely using multiple power strips to account for the many, hungry power plugs your reef requires. Take a quick look at Randy Everett's experience and heed his advice to avoid your own personal disaster.

For more information, photos and to read the full thread visit the WMAS message board

[http://www.utahreefs.com/forum/forum\\_posts.asp?TID=9812](http://www.utahreefs.com/forum/forum_posts.asp?TID=9812)



*Quick background, I have had a 90gal acrylic, reef set-up and running for about 8-10 months, I had just upgraded my lights to Metal Halides and VHOs, had Eric make me a new refugium, and was just starting to get a handle on my algae. I went out of town for three days. On the second day I received a call from my parents that were watching my house, checking on my dogs, and checking on my tank.*

*The call was to let me know that I had a fire; it resulted in a 100% loss of all the contents of my house, and most of the interior structure. And of course the tank melted, my floor looked like a beach from all the live sand, and live rock...my smoke detectors melted into something that looked like they belonged in a cave, the light switches looked like drips of wax. The only positive thing is that no people were hurt.*

*The fire was caused by the build up on the electrical contacts on a surge protector where my lights were plugged in. When the lights turned on by timer for the day, there was an arc/spark that caused the fire.*

*The surge protector, ballast, refugium, and most everything was in the stand. I feel that I contributed to the build-up by packing so much in the base of the stand. The other warning the fire inspector gave me was to be very careful in the future and to not overload the circuit, because he had seen a number of other fires caused by other aquariums.*

*So my warning/request is to have everyone take **15 minutes** and look at their set-ups, make sure you aren't overloading the circuits, and that you have as much of your wet things as far away from your electrical as possible. As well as look behind all of our TV's and stereo equipment at the rats nest of power cords and make sure you aren't overloading that area either.*

## Coming Attractions

By Shane Heil

Often, the best part of going to the movies is watching the Coming Attractions and anticipating what movie you'll see next. Check out the great subjects we'll be covering in next month's issue of the Sea Star:

- Pimp My Skimmer – a quick & easy skimmer mod to improve the fractionization of your foam
- Breeding Bangaii – a look at the successful rearing practices of an accomplished aquarist
- RAID for Red Bugs – steps to eradicate the elusive acro predator

