

FAQs about Live Rock

a discussion hosted by Bob Fenner

I have to move my 90 gallon reef tank and was wondering what is
> the best way to move the live rock. I was going to fill up a plastic
> garbage can with water from the tank and put the rock in it and transport
> it that way (about a 30 minute commute). Or , would it be better to
> individually wrap each piece in moist newspaper? The latter would be more
> difficult but I am more concerned with keeping the rock in good health and
> don't know which way would be better for the rock.

>>

Good question. Move the rock like the pros... especially if it's only going to be a few hours in transit... just moist, in the dark, with the top covered with a moist towel... out of the sun/cold... Take care to scrub the containers you use with rock salt, and rinse to ensure no soap, oil, etc. residue in them... and double, triple line them with good plastic trashcan bags to keep contamination to a minimum as well.

Otherwise, plan your move, and move according to your plan. My outline on how to do such jobs, including tools and steps to completion, can be found (and John, you can post it) at www.wetwebmedia.com

Bob Fenner

base rock

I was wondering how long it takes for base rock to become "live". I have a 90 gallon tank with about 50/50 live rock to base rock and I was wondering, under proper conditions, when can I expect my base rock to become "live"? I have heard different opinions from 6 months to 5 years and was hoping I could get your opinion on this subject.

>>

Varying times... a few to several months under "propitious circumstances" (adequate lighting, circulation, nutrient availability, dearth of competitors, predators...)... Better to place some "live" live rock on and around the base to provide starter materials, organisms.

Bob Fenner

Live Rock Ok to add now?

Hi, I am scheduled to receive 45 pounds of live rock on Wednesday that I ordered through ffexpress. I have a 55 gallon fish and hardy invert system. The tank has been running for 6 weeks. I had a couple of clowns die through the cycling period and currently in the tank are a algae-eating blenny, strawberry basslet, and an anemone crab. My ammonia level is 0 but my nitrites are off the chart.

<Should have waited on placing more live rock till the existing system had thoroughly cycled...>

I am using protein skimmer,wet/dry,etc. My

questions are: When I receive the live rock from you guys, what do I need to do before placing it in my tank(rinse,scrub,etc.)?

<Not much... if the rock is in good shape, place it... see below... Scrubbing, rinsing will only boost your nitrogen (and other) toxic levels...>

Should I add small amounts

per day or all of it at once(The rock I ordered is pre-cured fiji). Lastly,

will my inhabitants be in danger after adding the live rock? Should I try to remove them or will they make it? Your help will be greatly appreciated....Thanks.

>>

<I would move the fishes, crab to another system if I had one... and wait till the main system had cycled completely to move them back... Bob Fenner>

Live rocks

Dear Bob

I find your Q&A very informative and interesting. A year ago I started my first salt water tank (33gal), I had about 10 lbs of lava rocks, then I put in 6 pounds of live rocks because I found them interesting. Now over the past year I now have 18 pounds of live rocks. My question is: can the lava rocks be considered live since they are almost covered with corraline alga , sponge and what I think are tunicates?

I have a protein skimmer, a Fluval 403(charcoal,bio-max,sponge)and 2 power heads 301 for circulation, 1 20w regular fluorescent.I have 2 tubastrea faulkeneri and 1 Heterogorgia natumani or Golden sea whip which are both doing very well.

Diane

>>

Absolutely on the question, what makes live rock "live"... Well done.

Bob Fenner

Live rock

Bob,

I have a year-old saltwater tank (46 gallon) with crushed coral and approx. 75 lbs. of live rock. I purchased the liverock from a local dealer (virginia). The dealer said it was cured; however, it had bristle worms and Aiptasia rock anemones in it. The bristle worms and anemones have been eradicated. The rock was covered with macroalgae which has been eaten by my Regal Tang. The live rock now has a coating of brown and green algae. I have recently installed (today) a Berlin skimmer and I have a 400 gallon per hour power head. My question is: does live rock ever die?

<Not unless it is "nuked" as with bleach, formaldehyde... some life continues...>

How can you tell if it

is dead? and do I ever have to replace live rock or can I just add to it?

<I do endorse adding, replacing part of live rock... to keep it's input in "dynamic equilibrium" (a fave oxymoron)... at about a year old, and then six months after... depending on size, type of system... ten to twenty percent or so>

Also, I bought some Coralife VHO actinic and 50/50 bulbs for my tank. I have 2 "All Glass Aquarium" striplight houses that had 2 actinic Coralife bulbs and 2 10,000 K bulbs. My VHO bulbs seem too big to fit in the houses. I can get them in, but the ends are too big to turn to the proper connection and when they seem to be connected the lights just flicker. Do I need to purchase a different house for VHO bulbs...or did I just get poorly-constructed bulbs?

<These lamps do need bigger fittings, and ballasts... Take a look through the fish magazines, and search the net... Champion Lighting (.com), Hamilton... others can help you retrofit your lighting>

One last question. Will scarlet reef hermits and Red leg-Lefhanded hermits cause any damage to soft corals or mushrooms?

Thanks!, Tammy

>>

<Oh, you do ask some toughies... yes, these animals can go awry... though generally not... one of the reasons I encourage folks to shy on the low density side if using them...>

Bob Fenner

Live Rock

I am setting up a 250 gallon reef tank, 30" high. How many pounds of live rock should I order?

Thanks.

>>

A bunch... maybe one pound per gallon now, and let it cure for a month or so... and then order more, and cure it over, to the side of the older... to not-overwhelm the system... and give you a chance to see how much more you want... Do look into the big multi-box discounts... ffexpress offers on their premium rock.

Bob Fenner

Live Rock

Thanks Bob,

Is the overnight delivery worth the extra \$\$\$?? Or will the die-off be about the same?

<About the same, nah to the overnight delivery... the stuff has already been "on the road" a few days already... another one is of less consequence than how the boxes have been treated in-between...>

I can't wait to visit Belmar, or any beach, in a few months, We're only 30 minutes from the ocean here, so we don't need a special trip to go listen to the waves. I t's great, just wish the waters were a bit cleaner.yak

yak yak.....

<Don't forget your "pass"... the beaches... and the boardwalk especially are nice... but another tax to step on the public's property? Sheesh>

Thanks and hope all is well,

Tony

<Definitely is so my friend,

Bob Fenner>

can i add live rock?

have a 70gal saltwater established for about 1 year now. have hard coral(not live) and puka shell bottom. have 2 wet dry systems going(eheim&fluval) just for good measures. using 1 filter with undergravel system. have 4 bulb hood with 4 ft coral life bulbs(very bright). have little trace of nitrates and zero nitrites,algae is flourescent green with some coraline pink. 1 flame angel,1 coral beauty,5 turbos,panther grouper. fish are doing well as with snails. want to add some live rock(fiji etc..) is this a good idea and how high should i keep rock.does live rock give off high ammonia levels? how many more fish do you think i can add to tank? tank is 4ft long 18in.deep and 18in wide. if i can add hard rock which type do you suggest(colorful) or can i add some colorful live coral? thank you for your time

>>

Yes to adding the live rock.. and it may give off some ammonia... so I would not buy totally un-pre-cured varieties... Or place all of it at once... Maybe get a box (cheapest break quantity) and see if you'd like to add more later... and place the newer above and around the first... And you could double the biota in your tank... but be careful with getting

anything small-ish... That Panther Grouper will be getting big/BIG soon, and able to drop that "landing craft" mouth up REALLY large. For your first hard corals do look to the genus Euphyllia, family Caryophyllidae, the Torch, Frogspawn et al. corals, they're about the hardiest for aquarium use.

Bob Fenner

Manono Live Rock Question (another one)

Just read daily Q&A about the lighting during curing. Could you elaborate a bit more...I have been told to leave light, leave off, etc. I have 20 lbs of Manono rock in a 20 gallon tank (just received it yesterday). We have a powerhead and a CPR Bak Pak skimmer on the back and a cheap Whisper Filter. Here are my ?'s If I don't have any light, won't that kill off the coral I DO want and the feather dusters (that I hope are on there)? If I do use light, what should I use (right now we have a 20 watt actinic and a 20 watt maybe full spectrum-not sure)...How long do you think it will take for me to see any life on it all--right now all I see is blackening algae (which I will scrape off when the smell dies down!!) and some pretty green grasslike algae. Also, you are so helpful-you have answered a question for me before and I was so impressed that you actually emailed me back!! Your answers always make good sense and seem to be without bias towards particular companies or products (I am finding that is a rarity in this hobby!!) Thanks in advance

>>

Thank you for writing. I am a proponent of "regular light photoperiods" when curing live rock... there are other schools of thought... that the lack of lighting might aid in ridding the rock/system of undesirable photosynthetic life... Leave the lights on as if the tank were fully set-up. For such low wattage lighting, have both lights (all 40w) on a good twelve hours a day... best with a timer.

You should see a veritable explosion of different life forms in a few days to a couple of weeks.

And thank you for your kind words. An honor, and pleasure to serve the interest and public.

Bob Fenner

Live Rock and other Fish

I recently read an article on your web site about Live Rock and how it will help keep your aquarium stabilized. I am very interested in this technique.

I have a 125 gallon aquarium and I have some concern about the type of fish you can put in an aquarium with the live rock. Any suggestions?

Nate Hayward

PS I think your Web site is awesome...

>>

Hmm, all sorts and thank you for adding to the site! I would/do endorse adding live rock, even to fish only systems... for all the reasons stated... The worst that the "type of fish" you might put in with the live rock would do is eat it... Really not a bad thing at all. You can put any, all types of fishes in with live rock.

Bob Fenner

Hi Bob.

I have a 37 gal tank with a 4" Queen, 3" Flame, 3" Regal Tang & 3" Royal Gramma. Is it prudent to add a couple of pieces of cured live rock to my system or did I miss my chance?

Also, I have been battling a parasite problem and the Cupramine has not seemed to completely lick it. I carboned the tank thinking it was licked, but within 2 days my Flame was losing colour and behaving erratically. A quick freshwater dip saved him and I re-introduced the copper, but my aragonite substrate seems to absorb it big time. My copper tests always show blue, which is not one of the choices (only green & purple)

What do you suggest?

Thanks, Patrick Collins

>>

Hmm, time for a new test kit... for sequestered copper solutions... And do get the live rock, but wait till the ich problem is completely licked. Let's try lowering the specific gravity to 1.017 and raising the temperature to 83F... and keeping the Cupramine at 0.20 to 0.30 ppm... by putting it in twice a day... And if/when ich symptoms are gone... wait a good month to place that live rock... The environment betterment it does will help keep your livestock healthy.

Bob Fenner

live rock

I am starting to get some growth on my live rock. They are white almost see-through and look like tiny trees. They are about 1/8 of an inch and I have about 6 or 8 of them . I just started adding liquid calcium, strontium, and iodine so that I can start putting corals in, could this have started the growth? What are they (good or bad)?

>>

Probably nothing to be concerned about... I wouldn't let them stop my starting the coral stocking one bit.... In all likelihood, these mystery worms, polyps, UFO's will disappear soon, of their own accord...

Bob Fenner

Replacing undergravel filter with LR

Hi Bob,

Thanks for being willing to answer questions from relative newbies like myself!

I have a 55 gallon marine tank which has been running for about 2 years with an undergravel

filter, supplemented at cleaning time by an old Fluval 303. Currently, I

have one yellowtail damsel,

two yellowfin damsels, and a maroon clown, plus a couple of Astrea

snails. Testing reveals no

PH, ammonia, nitrate, or nitrite problems, but I do have a long standing diatom bloom (probably due

to excess nutrients in the filter and tap water). I am in the process

of upgrading my tank by

adding a CPR BakPak skimmer, PC lighting, and a newer Fluval. I would

like to replace my

undergravel filter with LR/LS, but I am worried about killing off my

current livestock while the rock recycles.

Should I remove the fish and snails to a 15 gallon quarantine tank for a couple of weeks after

adding the "cured" rock?

Thanks again! Deborah Padgett

>>

It is an honor and privilege to share my thoughts with you. I would definitely remove the livestock as you suggest while you're curing your new rock... and add the listed gear as you can.

Bob Fenner

Bob, I have a 125 gal tank, and I cannot keep a good quality of water. I keep hearing over and over about adding live rock to help filter the water. Does this help? Also I have a little cooper in my tank, How do I remove it? The tank has crushed coral the bottom.

>>

The live rock is definitely one of the easiest, surest, and best ways to generate and sustain an optimized environment. Take a look at my live rock article stored at www.wetwebmedia.com for more.

Not to worry re the copper, if there is any detectable with a test kit, go ahead and place some activated carbon (like chemipure) in your filter flow path and it will be gone in a day... Otherwise your live rock will quickly absorb any small residual.

Bob Fenner

Hey Bob: I just purchased about 60 pounds of cured live rock from ffexpress (great rock by the way). My tank is about 3 1/2 weeks new and I've been wondering about how much light I should be using. The tank gets light for about 6 hours per day. Brown algae film is developing on the glass. Grassy moss type stuff is starting to regrow on the rocks. Am I using too much light? When should I start adding algae cleaners (hermit crabs, snails etc.)? Thanks for your help. Sherm >>

>>

Good questions... There are, as usual, more than two schools of thought on this subject: I am of the one that suggests having more light on... kick it up to the 10,12,14 hours a day that you will be using... and encourage all those more light dependent forms of life.... And as soon (should be a couple, as in two, weeks) that much in the way of green algal forms start up... do start placing whatever cleaner uppers you intend to use.... Ahead of other livestock.

Thanks for writing, Bob Fenner

We're beginning to put together our 250 gal aquarium. The aquarium will be fish only (angels-butterflies-box fish) along with some red hermit crabs etc. I had planned to put in live rock. A person at a marine pet shop advised not to use live rock if we were going to have a fish only tank. She said it would create algae problems. We will have an Amira wet-dry filter with 2 protein skimmers each powered by Rio pumps. We have a chemical chamber for activated carbon if need be and we will have 25 watt UV sterilizer on it. I thought the live rock would provide some filtering, hiding places for the fish, and provide some food for some of the fish. What advice do you have?????

Mark Chalupsky

>>

I am of the direct opposite opinion of the other party... The live rock will do many things to help you keep your system clean, and relatively algae free... Do place some for looks and function. My more complete stance on live rock use can

be found in articles posted at www.wetwebmedia.com

Bob Fenner

Introducing live sand and/or rock

I am a relatively new hobbyist. I have a 100 gallon tank that was set up a year ago with dead coral and rocks. I currently have a scissortail gobie, yellow-head sleeper gobies, yellow tang, emperor tang, clown anemone, rabbit fish, long-nose hawkfish, and flame angel and all are doing extremely well. I'd love to switch to live rock/live sand but am concerned about the health of my fish. I would also like to try the cleaner crews. Is there an order to introducing rock or sand? Can I add small amounts of live rock without jeopardizing my fish or is it better to totally empty the tank and start from scratch with a new live rock set up? Should I wait until the live rock/sand is stable before introducing the cleaner crews? Please advise.

Thanks, Mary Frances Weathington

>>

Good questions. It would be BETTER (wow, that's bright) to switch to, add the live rock... And I would... add the live rock... and let it inoculate your present (or replaced if you want) substrate... this happens with time.

The live rock can be added a bit at a time (10-20 pounds at a throw let's say), and I would definitely request the "fully cured" types if you didn't want to undergo the trouble of curing it yourself... If indeed you wanted to add a great quantity (let's say more than 20 pounds for your 100 gallon system), I would ensure that the rock was more thoroughly cured yourself,,,, by curing it in another system... Setting up a tank with a skimmer, monitoring ammonia, nitrite for a month or so, while the concentrated mass re-centered itself.

The "cleaner-uppers" can be added at the same time either the small amount of rock is added or after the big amount is cycled...

Bob Fenner

Long green algae

I'm still curing rock. Assure me that I'm on the right track. I have long green algae, well it's about 1/4 inch long and expanding, growing on the rock. Kalkwasser is going in at about a gallon a day. Ammonia is good. Nitrates high. Alkalinity is above 3.6, pH is about 8.4. some coralline algae is still there. Will the green stuff die off eventually. Rock has been curing (was pre-cured from FFX) since 1/5. Thanks. Maybe if you could give me some idea of what to expect in a normal cycle?

>>

Sounds like you're done... no ammonia, no nitrite... place the rock... or if it IS placed, start adding your purposeful cleaner uppers... I'd get a Lawnmower Blenny and/or Ctenochaetus or Zebrasoma tangs in there right away...

Bob Fenner... who says, change out a good deal of the water in the meanwhile... to get the nitrates down to 10-20ppm max.

Bleaching

Hi,

I have a 46 gallon reef tank with Fiji live rock. About a month ago the live rock started to turn white. Why? How can I stop this? Also, how do I promote coralline algae?

>>

Likely there is something chemically amiss in your system which is responsible for this overall die-off. Do you test your water for calcium, alkalinity? What sorts of supplements, if any do you administer? Tell me about your set-up... do you have a skimmer? What sorts, amounts of material is it accumulating? What about your lighting... gear, time on? Need to know more to tell more...

Bob Fenner

live rock change

hi,

What is the best way to change out my old live rock for new, the old rock is about 6 years old and is full of glass anemones i just can't get rid of them! so if i change out the live rock with new will it shock the tank or will the anemones grow back? the rock is in a 120 gallon tank and has about 10 fish of different sizes and ages. i have a purple tang (victor:) who is 6.5 years old so i want to make sure that i don't mess up and cause a problem changing out this rock. as for the glass anemones is there any thing that i can do i clean the rock about once a month but they come back and have tried the shrimp you sell there at ffexpress but they didn't make a dent they are still alive a year and still going strong! so please if you can help me let me know oh also how much rock should i buy for that 120 gallon tank thanks and have a great day.

>>

Yowzah... some Glass anemone trouble now! If it is that/this bad, and you're going to get rid of the existing live rock (more about this below), get out all the clean plastic containers of size you can get your hands on... and if there's not enough of them to fit all the old rock... a few thick plastic trash can liners in your cleanest (and least holey!) trash cans. Have enough towels handy? Now, with the new "as cured as you can buy it new live rock on hand", carefully lift the old rock out and place it (dry) in the containers. After it's out, (did I mention to turn the system lights off?), let the dust settle, and do your best to siphon about half the water out while carefully gravel vacuuming the bottom... Next, carefully place the new rock, top the tank off with pre-made synthetic water. Run your skimmer full out and make sure it is emptied daily... or more frequently... measure for appreciable ammonia... all the things you did when you first got into the hobby!

Now a sobering statement: Even with a complete change-out of the LR and vacuuming... in all likelihood enough Aiptasia bits/parts will be introduced on the new rock, still in the system to re-introduce it... and no, I wouldn't suggest taking the fish out and nuking (bleaching) the whole system (including the substrate)... Aiptasia spp. are almost as likely to "get into" the system on the new LR anyway. So, what would I do?

If one will fit in, about this time or within weeks of the change-out, install a Chelmon or Chelmonops sp. Butterflyfish (if it will go with the rest of the fish livestock you have)... this is the current "A" line of defense against Glass Anemones for your type of setting.

Bob Fenner, who has LR, Aiptasia, and other related pieces archived at www.wetwebmedia.com for your perusal.

Live Rock

Hello,

I purchased live rock from Ffexpress about 4 months ago. The rock looks okay but I am getting concerned that I do not see more growth on the rock. A couple of spots here and there but nothing to say that it is very active. A friend of mine says it could be a lack of lighting but I tend to disagree. About the only thing that is growing are clumps of

hair algae and another type of algae I purchased from a local fish store. None of it is really on the rock though. Do I need a supplement or should I give it more time? How long does it take? Do I need to dose calcium? Am I bleaching the rock with too much light?

220 Gallon Reef/Fish

680 Gallons of Circulation Per Hour

R/O Unit - Automatic Replenishment

3 175Watt 10K Metal Halides - Sides (Noon - 5:00pm), Middle (4:00pm - 10:00pm)

1 VHO 10K - 12 Hours per day

1 VHO Actinic - 12 Hours per day

Trickle Filter - 24 x 7

Protein Skimmer - 24 by 7

50 Micron Mechanical Filtration - 24 by 7

25W UV Sterilizer

No Carbon

No Dosing

No Buffering

170lb Live rock

40lb live sand

1 Hippo Tang

25 Snails

15 Crabs

3 Cleaner Shrimp

1 Long Tentacle Anemone

1 Bubble Anemone

Ammonia = 0ppm

Nitrites = 0ppm

Nitrates = 0ppm

Copper = 0ppm

Ph = 8.4

Temp = 76-79 Degrees, 77 Degrees Most of the time. It does fluctuate.

No Water changes. Automatic Replenishment from R/O Unit (1 Gallon Per Week)

Various Additives (No Schedule)

- Coralife, Iodine

- Kent, Essential Elements

- Kent, Coral-Vite

- Kent, R/O Right

- Kent, Zoe

Feed, Once a day

- Flake Food

- Cut up frozen shrimp

Thanks, John Heiberger

>>

Thank you for writing. It may well be that you have a situation of not enough light... even though you list 3 MH and

types of fluorescents... this is a big tank... you might want to borrow/buy a PAR meter to check how much useful illumination is reaching various parts of the bottom, live rock... and consider adding more/larger MH or compact fluorescents.

Alternatively/additionally, you may well have either/or both a calcium (and to a lesser extent other biomineral) and/or an alkalinity deficit. Invest in test kits for at least calcium and alkalinity... and ring me back when you have these data. The starting water and replacement is not supplying sufficient Ca, Sr, Mg, carbonates, bicarbonates... are these available through your substrate, feeding, other supplements? I doubt it. The only way to "tell"? Through testing. A minor factor may be your "clean up" animals and tang... they might be consuming a modicum of the live rock life.

To re-cap, what I would do is:

- 1) measure PAR (photosynthetically active/available radiation).
- 2) measure calcium concentration
- 3) measure alkalinity

Then contact myself, others and seek their input on how to address your situation.

Bob Fenner, who really likes to help solve these "mysteries"

New Live Rock over Old?

I have a reef tank that has been successfully established for years.

The live rock was originally beautiful with all kinds of things growing on it. I have VHO lighting but over time the live rock has grown to look more like just plain old base rock.

Should I seed my reef with some new pieces of live rock with plenty of things growing on it?

If so, is there any real reason beside the aesthetic beauty to add new rock?

Thanks for the help-Matt Brady

>>

Thanks for the query. Lots of input on this issue the last few weeks... Yes to "boosting" your live rock's biodiversity and abundance via periodically adding some new material. I would do this about every six months... To add food, chemicals, more biological filtration... and beauty and interest!

Bob Fenner

I have a 75 gallon non reef tank that I have recently started adding live rock to help control nitrates and for the natural look. I have five angels, two tangs, two clowns, two starfish, five red legged crabs, two snails, and two anemones. I try to mainly use protein skimming for filtration, but I do have a wet/dry that I have a UV sterilizer running on the return flow with the protein skimmer in the sump area.. I also use the wet dry shelves for carbon, polyfilters, and other media for chemical filtration. Since I have never used live rock before, is there any additives necessary to promote the health of this live rock? Does this sound like appropriate filtration? All five angelfish and the two tangs love to graze on the rock. I have picked pieces with lots of coralline algae from the LFS assuming this is the material that will help with nitrate reduction.

I also a got a passenger of unknown identity on the last piece. I believe it is a "nudibranch". It is about an inch long, oval and black with a white stripe on its back. It has two short tentacles on its head and mouth that it seems to eat film algae with. Should I have any concern for my fish or crabs?

>>

Very good question re the live rock: "feeding" needs. In general, most folks seem to rely on the LR dissolving, its animal and vegetable life dying/decomposing/being eaten to provide nutrient base to the ever-changing make-up and loss of bio-diversity (though not especially loss of biomass) that accompany the "aging" of LR in a captive setting... However, the LR can indeed be "fed" a chemical mix that will boost its health, even growth, and sustain, at least slow,

the succession which I've alluded to as a loss of biodiversity. A friend and associate in the trade, Walt Smith, of WSI (Fiji) is working on putting together such a mixture as we speak... Very basically, this is the same stuff (buffers, alkaline earth material) that folks utilize for biomineralizing livestock (like hermatypic corals) in reef tanks... Re the nudibranch... I'd probably remove the animal... if for no other reason than the fears that it might munch something I value, or die suddenly and cause a chemical problem, or be eaten by an unsuspecting tankmate and cause its demise...

Bob Fenner

Hi Bob,

I am in the process of taking down my 26 gallon tank, completely cleaning it, then re-starting. If I thoroughly rinse my crushed coral substrate and let dry in the sun will that kill off any lingering ich parasites? What should I do with my live rock to cure all ich?

I would like to add live sand this go around, does it require any special maintenance? Can I get it from the beach? I have heard that I should not use live rock AND an undergravel filter as they will work against each other, so if that's the case what other filtration can I add in addition to a CPR backpack, a fluval 2, and the live rock (3/4 pound per gallon) Maybe a good size canister like a fluval 303???

Thanks.

>> Well, let's see. Yes, you can rinse and air dry the current substrate to rid it of ich life stages. But I would chlorine bleach soak it, rinse it and just dechlorinate it for immediate re-use. Re the live rock, you could just let it go fallow in an aquarium with no fish livestock for a few months (2-3), but if you have no desire to preserve the living part of it, treat it with the bleach et al. process used for the sand. The live sand can be treated/maintained in a few ways. I would use Live Rock with it, indeed, just allow the live rock to "seed" the sand. Don't get the sand from the beach. A lot of trouble and problems with introducing undesirable and dying life forms, pollution... Instead just buy the substrate from a dealer, rinse it and place it before the Live Rock. You can use an undergravel filter with one or both (live rock, sand). If you'd like you could add another filter to the system, and a canister or good sized outside hang-on power filter are both good choices. Bob Fenner

About a month ago I started a new 75 gal. tank and had a lot of problems getting the tank to cycle. Your article on live rock convinced me to start over using live rock which I have done. When I received my shipment of live rock from Flying Fish I cleaned the rock as best I could and added it to the tank along with a Samoa Sand base. I used 2 inch PVC to lift the rock up off the sand to prevent any stagnant areas in the tank. It only took a couple of weeks for the tank to complete the cycle. A couple of weeks ago the local pet store suggested I add a power head just to move water across the rock. When I put the new power head into the tank it created a cloud of garbage that it blew off of the rocks. I passed the power head over the rock again last week and again this week with the same results. This hasn't caused any problems with my starter fish (2 clowns, 2 damsels and a yellow tang) but I'm afraid it might cause problems with the fish I have just ordered. I don't think this is caused from over feeding because all of the food is gone within a minute or two. Is this normal or could the live rock be dying. The Ammonia, Nitrate and Nitrite have been at 0 ppm for the last two weeks and the pH is at 8.2. I am using a wet/dry filter along with a Berlin protein skimmer and will be adding a 40w UV Sterilizer. Should I be concerned with the live rock or let it be from here on out.

ThankYou, Steve Stockton

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Steve, thanks for writing. I frequently remark to folks in the "content provision" (text and images) side of the ornamental aquatics interest my misgivings on the (apparent) necessity to provide "brief, concise" (read that as scant, fast, incomplete) "answers" or coverage of a topic... Your query is a case in point. Yes, the mulm/silt probably originated on/from the live rock, and for the most part it is more of an unsightly mess than a functional problem. I would either (in addition to your "blasting" cleaning practices) gingerly gravel-vacuum it out slowly but surely over the next few months, and/or utilize a "diatom" or mechanical filter to sieve most of it out (your LFS may rent Diatom (Vortex tm) filters, or you could look into a Magnum, Eheim, or Fluval outside canister filter arrangement with your/their gravel vac attachment on the intake side. Otherwise, don't be overly concerned with the mess. It too will pass. Bob Fenner

Hi Bob, I'm planning to set up a 75 gallon tank and was wondering what the rule is for live rock in pounds. How much weight for this tank? I have a 45 gallon corner tank and I started with only 10 lbs two years ago and all is fine. I have added another 10 lbs since then for a total of only 20. Is this ok or the more the better?

<Errrr, well depends on... density of the material being used... the shape of the tank (hex, show, standard...)... what appearance or effect you're trying to achieve... how much moolah you've got to invest... but about a pound to a pound and a half a gallon or so... for many folks/circumstances... and the more the better... sometimes it's worthwhile to do as you're doing... add a bit every few to several months... but cheaper by volume (actually pounds, boxes) buying. Bob Fenner>

I am starting up a 90 gallon reef system. I have the water conditions under control and have added a supplement to start bacterial growth. I want to add live rock to help cycle the tank. How long do I have to wait before adding the live rock, and how much rock should I add. My system uses a trickle filter and protein skimmer for filtration. Also, I have a question about live rock. Will store cycled live rock have coral growth and other organisms present on and in it, or is this only fresh live rock?

thanks for your help.

>>

Welcome to the reef interest! Lots of different opinions... and mine aren't always "the ones"... but here goes: You only have to wait a few days to a week after putting your system together to start placing, or better still, place all your live rock... to give the water time to "settle in"... And, both store-cycled (or any other place) rock has about all that comes with live rock that's going to make it... but if it were me, as your friend and accomplice, I'd keep investigating till I was real sure about how to proceed.

Hmmm, likely a big chance for savings in purchasing a bunch (like all) your rock at this point... and maybe curing it in-place (in your tank) or having a store, other hobbyist who is "set-up" for LR curing help you... I wouldn't trust any rock as of being "cured" without making sure it was done myself...

And don't fool with trying to "cycle" the tank any further, the live rock will do this... along with a few other things. You're welcome to more of my gratuitous opinions in the form of articles at www.wetwebmedia.com and thank you for writing!

Bob Fenner

I have had a fish only tank setup for about a year now, and it was seeded with live sand from a LFS. I added rock, regular "dead" stuff. Will this rock ever become "live"? If not, how is live rock made? It can't all be from the ocean especially with all the bans going on in the world.

>>

Under propitious circumstances your dead rock will definitely become more live. It may not ever rival the abundance and diversity of different types of wild collected rock, but no big. Many people add some live rock to dead and vice versa to culture their own more completely and quickly. A good deal of live rock is cultured (a few million pounds going in Fla), but most is still wild-collected, mostly out of Fiji, but also from Samoa, Marshalls, Tonga... Bob Fenner

I have two systems. One is 240 gallons with 300 lb. of live rock and fish (only about 15 at the time). This tank has been set up for about 4 months now. It has a wet/dry skimmer system with a UV sterilizer. The second tank is a 55 gallon reef aquarium with about 90 lb. of live rock and several pieces of coral (both stony and otherwise). There are only two fish in this aquarium at the time. It runs with a skimmer and two emperors. Even though it has been set up for nearly a year, the live rock was added 4 months ago as well and the tank cycled once again. We are having a difficult time dropping the Nitrate in both aquariums. It is running fairly high (over 50 ppm). Ammonia and nitrite are "0". We have always performed water changes of 20% every other week in both aquariums. We even upped it to weekly once we saw that the nitrate was on the rise. Could the live rock been an ongoing cause of this? It is the only thing I can think of because we feed so sparingly.

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In the FO (240) the wet-dry media is the culprit. In the smaller system, the LR is definitely doing something... dying, and contributing the nitrates... It should stop, and there are a few ways you can speed up the maturation. Increase lighting, add some macro-algae to the system or to the sump with another light. If you get real desperate, a unit of Polyfilter in one of your outside filters will help. Otherwise, and really in my opinion, unless you see your animals negatively reacting to what seems to be high nitrates, I'd not worry.
Bob Fenner

I guess this is more or a comment than a questions, it seems that most of your answers to questions are "live rock live rock live rock". Now I know live rock is the new, or has something come along to replace it, biology filter method but it just seems that since FFE sells live rock you seem to be pushing it at every turn.

>>

Thank you for writing. Yes, I'm a big fan of Live Rock... it's use almost guarantees optimized, stable water quality (or at least much better than things would be in its absence). I don't know how much, or even what types of LR ffexpress sells, nor is it really any of "my business". You might notice I plug Siporax, PolyFilter and a few other unique/proprietary products, because they are 1) so good for their proscribed purposes, and 2) have to be identified by brand name as there is nothing else like them... and as far as I know, the folks at ffexpress/Petstore.com don't sell them (though I would). What would you suggest yourself? Please pick out one or a few of the queries that come in and send me/us your posts.

Now live rock does work but guess what so does wet/dry system, sand filters (what ever happen to live sand), undergravel and the list goes on and on. I think it's very self serving to push live rock on everyone as if other method don't work just as well, and they do. I've keeping saltwater fish for over 15 years and know a lot wholesalers and people that work at public aquariums and just people who have been in the hobby

for years. What I get from them is that many different methods work and you shouldn't attack anyone for what method they use as long as it works.

>>

Wet Dry filters as originally described by George Smit do work, but almost all the ones I find on the market are incomplete... to a one, they are nitrate factories, pushing the forward reaction of nitrification... and almost all would be improved by removing the wetdry media, definitely be improved by adding more live rock (from ffxp. or not), and lighting, mud, Caulerpa.

And what? You believe sand, undergravel work "as well" as live rock? Time to get out and ask around. There ARE many methods to produce and maintain high water quality (isn't this the purpose of filtration?) and I do readily admit and suggest all the types of filtration... for different purposes and applications. And do not ever intend to attack any ones ideas...

To me live rock is just another method in the long line of systems that is being push on hobbyist to get their money as in a year or two, if not already, something else will take its place and drain more money out of hobbyist.

Michael

>>

Michael, what a dismal view. Really? How about this? Maybe you can/will invent something better than live rock or whatever else is the "next wave" and can produce and give it away or for cheap... and we'll all forget about live rock. What do you think people should do with their money? Give it to... Bob Fenner, who hopes you're joking.

Hello! I have an overflow 92 gallon tank. I read one of your daily questions about the accumulation of "gunk" sandy detrius type pile up on live rock. My live rock has the same problem. I have one return pipe to the tank (from the sump below) and it doesn't have a direct flow over all of the live rock to "blast it". Should I purchase a powerhead of some kind that will create more water circulation in there? The tank is a corner aquarium shape (like a piece of pie) to fit in the corner, so the back of the tank comes to more of a point and the front is wide and rounded. The return pipe is in the back to the right side and does sweep over some of the rock. The "vacuum" that I use for water changes doesn't work for sucking up the "mulm" on the rock either...it's suction must not be strong enough and there are too many small crevices. Also, one more question...My live rock is sitting right in top of my sand/coral gravel...I have read that many people prop it up because it isn't supposed to be directly on top of the sand...what is your opinion on this topic? My tank has been set up like this for about 9 months. Thanks!

>>

Yes, a powerhead blaster is my fave. The alternative, a suck-em up attachment to an outside powerfilter is another possibility but this really takes a long time to get much of the loose material out. You can attach a smaller diameter piece of rigid tubing to your filter to do this, but I wouldn't. Get a small but powerful powerhead.

On the second issue, I don't find that placing the live rock on the substrate does any harm at all, and looks more natural and is more stable... especially with fishes and critters that like to do a lot of excavating.

Bob Fenner

Live Rock and

Thank you for your help with my previous question.

I currently only have 20 LB of Fiji live rock in my 55 Reef. I have soft corals (Colt, mushrooms) and Anemones. I have a protein skimmer that does a great job. My questions are as follows:

1. Does the use of live rock really reduce nitrates? Another words, does the live rock actually produce the anaerobic bacteria that completes the nitrogen cycle?
2. Can I slowly add live rock (say a small piece a week or so) and not kill my tank or the corals?

Thank you for your help.

Andrew Elstein

>>

Good questions... ones that need to be known by all, but are rarely raised...

1) Yes, healthy, cured live rock does aid in denitrification (the doing away with nitrates) and their removal through utilization... The gaps, biofilms et al. do harbor and foster large populations of anaerobic bacteria involved in the former, and the presence and metabolism of photosynthetic organisms go a long way to taking the nitrates out of solution.

2) Slowly adding live rock? I wouldn't... on a few counts. Principally the havoc of disrupting your other livestock from introducing "gunk", the re-establishment of many "cycles"; but also the likelihood of introducing undesirable life forms, and the inconvenience to you/myself of treating/re-treating the rock, the system... I'd at least have another system to treat the rock if I were buying it piece by piece to thoroughly cure it ahead of placing it in the main tank. But I'd look around for deals on box quantities instead (really) and batch treat it all at once, or make an arrangement with another aquarist in need of a large quantity, and/or a retailer and have them batch treat it, then introduce "the rest" of the live rock all at once. Think about this, I'll bet you'll agree these are the routes to go.

'Bob Fenner

Question on using Live Rock for FO systems

I have a question. I have a 30 gallon tank and have 3 triggers.(Clown,Blueline,Huma Huma) I have fake rocks and plants. Would they prefer live rock and real plants or should I stick with the fake stuff?

>>

They and you would very much prefer the "real thing". Though they may indeed have a field day picking at, eating, even moving the rock around, the life in and on it will do great things to improve water quality, their health, and make your system look and be much better. Want more? Take a gander at my live rock bits on the [wetwebmedia.com](http://www.wetwebmedia.com) website.

Bob Fenner

Live Rock Color

Most recently in the last 3 months I have had new Fiji lice rock from Flying fish express, I'm trying to grow that nice purple algae that I see in all the show tanks, but I've yet to do it. What I have seen is a very light green hard algae and little red spur algae growing on my rock.....I Dose using Kalkwasser, I also use Strontium and iodine.....what can I do to get the purple algae and is there something wrong with the algae on the rocks now?

Thanks, Scott

>>

Welllllll, a few things... but I would (be remiss and wrong to not state that I would just) start with some/a bunch of rock that had the purple types of coralline algae on it to start with. Mostly the better stuff hailing from the Marshall Islands has been/stays purple. To keep the corallines ripping requires about four (stop me before I add more) "things": high alkalinity (3.5 meq/l), high pH (8.2 or higher), high free calcium (400ppm plus... and a compliment of other alkaline earth materials: strontium and magnesium) and a dearth of encrusting algae pickers (like some hermit crabs)...

Hope this helps, and you may well have spurred me into writing that magnum dopus on "how to grow the best live rock"... Much more on this in a few months.

Bob Fenner, who doesn't mean to be mysterious, but is helping a friend to develop LR and Coral acclimation and "supplement" additives...

Dear Sirs,

Per the posted Advertisement in Fiji newspapers this is a written submission to the:

Secretary,
Cabinet Sub-committee,
Coral & Live Fish Harvest,
P.O. Box 2131, Government
Buildings, Suva

As a long time writer/investigator in the ornamental marine trades in the United States, Japan and the Philippines, I call and count on you to listen with reason to the various "noises" rallying to their own agendas against the industry in your country.

Having been around a long time, I have heard these self-proclaimed "saviours" coming to the "aid" of "poor, backward" countries to "help" themselves in masquerade of self aggrandizement. Beware of these people, and their programmes.

I have an advanced degree in Fisheries Biology, and am a long-standing writer of underwater natural history essays and popular aquarium husbandry articles and books. My works are referenced and available through BIOSIS. Thank you for granting me this opportunity to give input to the issues of Reef Resource Utilization in Fiji.

The real question of wild stocks use is "are they worth it"? Relative to the costs to local peoples, the environment and the overall economy of the exporting nation. These considerations of course need to be made not only in terms of the costs of doing something (the collection), but also in light of the null hypothesis (the "costs" of doing nothing), and other opportunities (the costs of doing something else). Please allow me to elaborate:

First off the issue of whether the action of collecting corals, live rock and marine fishes is worthwhile. Yes, on several counts; it brings skills, employment and monies into many peoples hands, tax revenue into the country, and use of resources like outbound air freight that would otherwise go underutilized.

The null hypothesis, that is the cost of doing nothing: Will the resource (the reefs and their livestock) be better off without collection? Minimally. Will the participating island groups and their populations be better off not being involved in the ornamental trade? No. Such uses are perfectly in line with the careful use and stewardship of their sovereign waters. Proper collection practices are entirely sustainable, and remove very little bio-mass. Rock material removal impact is likewise minimal, and in some proven cases, beneficial to drainage, thoroughfare, and fish production. What would stopping collection practices do to improve the environment? Marginally, nothing.

Lastly, what is sometimes called the business or opportunity cost, that is, what you might otherwise do given the same resources. This is a/the field that best exemplifies what a well-run countrys government is doing, emphasizing where and when it should to place its collective concerns to best serve its people. Relative to other sources of reef damage, short and long term, how important is the selective removal of marine livestock from Fiji's waters? Compared with run-off from construction-grading, agriculture, sewerage it is nothing. Even the casual use of anchors and two-stroke (versus four) engines and jet-powered water vehicles are far more destructive (orders of magnitude). What is it then that gets so many people's attention about the live and curio use of reef resources? Their visibility! Because we are above water we notice much more the buildings, employees, and beautiful living material that we can see due to the businesses involved in the ornamental trades.

I want to tell you, I am proud of my involvement in the pet-fish businesses, hobbies, and sciences. Over the last three plus decades, I have personally traveled to and actively participated in establishing and improving collecting facilities around the world, including Fiji. There are no better examples of careful use of reef resources than your country. Native people do the collecting, processing and shipping better than I've encountered anywhere. To their and Fiji's credit, they provide an excellent, healthy product that does uncountable good in bringing awareness of the living world to many people in several countries. All this at minimal real "costs" to the reef environment. Anyone who investigates the field will come to this conclusion.

I will be re-visiting your country from October 11 till the 23rd, and will gladly meet with you to present my facts and opinions on the industry, hobby or sciences views on reef resource utilization.

Sincerely,

Robert (Bob) Fenner
10251 Thanksgiving Ln.
San Diego, California, USA, 92126
bobfenner@aol.com

I have a 180 gl salt tank with fish only and want to add live rock, but the tank is already nicely decorated with dead corals. I want to add live rock because its suppose to be healthier for fish. How much live rock should i add without eliminating the decorations i already have,should i eliminate my wet/dry?and what kind of lighting should i have on this tank currently and what kind should i have when i add the live rock.i am currently using a cpr sr2 in my sump,if i add live rock i will replace this with a berlin skimmer rated for 250 gls.

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Lots of good questions regarding live rock. Overall, don't worry concerning where, how much live rock you add, or about your lighting... the types of life that can, will prosper under whatever regimen you have... place the LR under your other "dead" decor... it will become coated with live material over time. Keep your wet-dry, do get the Berlin skimmer. For much more on the issue see the article posted on Live Rock at wetwebmedia.com or the October 99 issue of the magazine FAMA.

Bob Fenner

Question: I am having a problem with keeping my algae eating fish alive (gobies, one tang, scooters, [also snails], etc.) They will typically flourish for about six to eight months and then die, with no outward sign of problems, with the possible exception of becoming lethargic near the end. I have had no problems with the other fish such as damsels, tomato clowns, and dottybacks. Water quality parameters remain in the normal range, with zero nitrates and nitrites and only a trace of ammonia. I have had red algae in the tank that I vacuum out. Is there something that I am missing that might be affecting these particular fish?

Bob's Answer: David, your fish are most likely perishing from one of two problems or a combo. of the two: Slow starvation and/or some type of chronic toxicity. Both problems are common and both easy to solve. The best, most easy route to suggest is the addition of as much good live rock as you can afford. The really low density, high-branching stuff from places like Fiji and Tonga is what I'm getting at. Discounting any deficiency in your set-up or maintenance, the LR will ameliorate all sorts of chemical and physical inputs into your system that might be slowly poisoning your bottom dwellers... and at the same time, offer them some ready food organisms that will to a degree be self-replenishing... No room in your tank for (more) live rock? Build or buy a refugium sump and link it to your main/display tank. Maybe check out the archives of Aquarium Frontiers on Line for some ideas on how to arrange the latter. Don't give up my friend.

Question: I have a 150 gallon tank with U.V., Skimmer, W/D and a Chiller. I have had the tank for 17 months. In it (for 13 months)

- 2 Tangs (Sailfin 3in.- Blue 3in)
- 3 Angels (Majestic 3in-Singapore 2in.-Coral Beauty 1.5in.)
- 7 Dam. (1 strip 2in.-3 blues 1 in. -3 unknown 2.5.in. each)
- 1 Tomato Clown 2in.

- 3 Butterfly (2 Raccoon 2 in. - 1 falcula 1.5in.)
- 5 Fire Shrimp
- 3 Cleaner Shrimp

I add Boyd's vitamins as recommended weekly, change 30% and clean the tank every four weeks. My first question is, can I add 1 small Auriga Butterfly or two small Pacific Cleaner Wrasse? My water is crystal clear. Yet, my two Tangs have developed discoloration around the head and the Sailfin looks like he has tail rot and the upper fin seems like someone has bitten it off. Both are still eating and very active. Help, what can I do?

Bob's Answer: Chris, you may well have a combination of "bad fish interactions" and semi-poor water quality going on in your system. I'd leave off on the proposed additions and put my big bongo bucks into some decent live rock. Your tank is pretty crowded and the Live Rock will help improve water quality and give livestock something else to nibble on. And consider taking the media out of the Wet/Dry.

Question: I'm in the process of setting up a 75 gal. tank. I have about 130 pounds of Tonga rocks that have been sitting out dry for several days that are in the tank now. I assume that most micro-organisms are dead. What is the best way to cycle the tank? Do I start with damsels so they can get the cycle started?

Bob's Answer: Tom, you set the rock out to dry for several days? You may assume that much more than the "micro-organisms" are dead; all that was on the rock is more than likely gone. At this point I would rinse (may as well be just straight freshwater from the outdoors hose) what's left of the bio-crud off the now-dead rock and utilize as much of it for a "base" to place your new (that you'll be purchasing) cured rock on top of.

I would not put any fish livestock in with what this stinky mess is going to be for several weeks, and then try a few damsels. Very likely you will have to go through a few massive water changes to rid yourself of the decomposition matter that is going to further issue from the old "live" rock.

In future, let's talk over how to go about curing "raw" or "new" uncured live rock in detail. There are a few variations on a couple of themes, but none call for killing off most/all the attached biota by complete drying for days.

To repeat: don't toss the rock, but treat it as if it's mere dirty base rock and blast off what you can (don't bleach it), and utilize it as decor and support for your new rock (that you need to go buy).

Question: What constitutes a reef tank? Do shrimp or live Fiji rock require special lighting?

Bob's Answer: Hey Kenny, this is part and parcel to the eight billion buck question! A reef tank sufficiently houses all types of organisms found in/on a reef... Or we could define such by their gear (the specialized lighting and filtration...), or...

Shrimps don't require special lighting, Fiji rock does (sort of). For practical purposes (what else is there?) you want enough strength (intensity), quality (temp. like 5,000 K or higher, CRI 90 or higher) duration 10, 12, more hours per day... of pleasing (the affective domain) looking illumination... Depending on size, depth of your system and pocketbook, this can be (once again for our discussion here) some sort of boosted full spectrum fluorescents, compact fluorescents or metal halides.... Want more specifics? Need more info. on your end.

Question: I have just received my second shipment of Fiji live rock from FedEx. Both shipments have been excellent and I very pleased with the amount of life on both sets. However I am somewhat concerned about the inverts and soft corals living on the rocks. I have heard from some people that some trace elements such as iodine

and strontium etc... need to be added to keep these inverts happy, while from other people I have heard this is not the case. Thanks in advance for any help you can provide. Also just in case you need this information, the tank is 75g with a trickle filter, 100g protein skimmer, 40w 6500k full spectrum light and 70 lbs of Fiji live rock.

Bob's Answer: Guy, with this set-up and amount/type of LR, I would either be adding useful supplements, doing my best otherwise to maintain water quality (filtration, circ., water changes with a good mix...) or adding (my best suggestion) a real calcium reactor (with carbon dioxide and magnetic valve/controller) to the system. Elsewise your LR will not be/stay as fabulous as it might. Check into the reactors and get or build one.

Question: I am fairly new to the hobby and am interested in setting up my aquarium in small steps. We currently have some damsels, snails and blue legged crabs. If I add live rock now will it kill all of the current occupants? Also can I add small amounts of live rock until I arrive at the desired amount?

Lastly, if I do not currently want to support inverts that would call the live rock home do I need the suggested amount of light now or can I add the high intensity lights when I decide that it is time to add the inverts? Thanks a lot and I really appreciate your column.

Bob's Answer: Don, you can add very small amounts of CURED LR a little at a time, but it is far better to make sure and cure yourself and introduce it all at once. Do you have another tank or safe container to effect the cure? Or to move your current livestock to while you're curing the rock in their tank?

Good query re: the light. Some decent intensity and quality of light is necessary. You don't state the size or shape of your system, but need to investigate thoroughly what your options are... in the short term (initial cost) and long term (electrical, lamp replacement)... Look into compact fluorescents first.