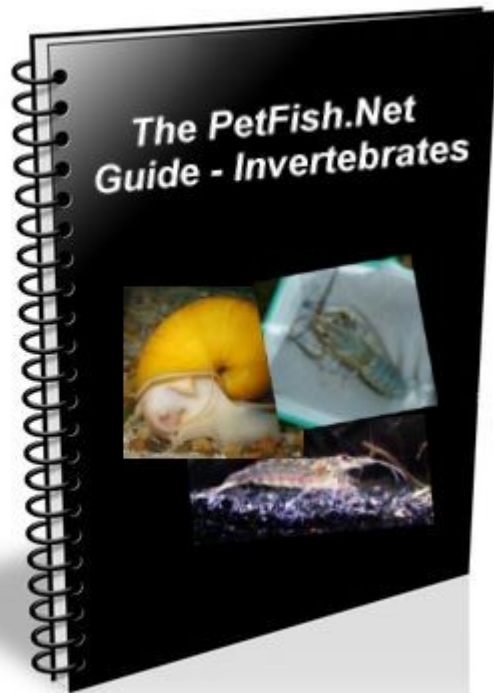


Invertebrates



Red Cherry Shrimp

By: John Harris

Common Name: Red Cherry Shrimp

Latin Name: *Neocaridina denticulata sinensis*

Origin: Taiwan, China

Temperature: 50 deg - 85 deg f.

Ease Of Keeping: Easy

Aggressivness: Non-aggressive

Lighting: n/a

Adult Size: 2.5-3.5 cm

Minimum Tank Size: five gallons

Feeding: algae, fish food, hardwood leaves

Spawning Method: Benthic surpressed larval stage



"Berried" Cherry Shrimp © Mollielover

Red cherry shrimp are hardy, adaptable variety of dwarf freshwater shrimp originally from southern China, but bred heavily in Taiwan and other parts of Asia. They are best kept in a range of pH values from neutral (7.0) to alkaline (8.0) in a small aquarium or a species tank all to themselves. They are fantastic algae eaters and will graze plants and tank decor, removing and eating problem algae, detritus and mulm. They will also readily accept fish foods of all types including flakes and pellet foods, and will even eat dried soaked hardwood leaves such as oak or almond leaves. They are peaceful and can be kept in groups and with small nano-sized fish as long as the fish aren't large enough to eat them. They are adaptable to a wide range of temperatures and will live peacefully in cool to warm water tanks.

Breeding is simple. The young do not go through a larval planktonic stage, and are born miniature versions of the adult shrimp. Females will hold clutches of berry shaped eggs with them prior to hatching. Males tend to be lighter in color, while breeding females generally develop an intense red. The color of both sexes of shrimp can be enhanced with a dark substrate (black) and feeding of red algae (natu-rose) and algae flakes. They will not harm their own young, and can be housed as a group. Growth takes place through molting their outer chitin carapace and shedding, which should be left in the tank for them to re-consume for the chitin.

Sending Live Snails By Mail

Snails in the Mail

Post by: **mastsnail** on **July 17, 2004, 12:01:39 PM**

I've been asked several times about my shipping method for snails and I'd like to post this so those of you who are curious will have a point of reference. Please, don't think this is the ONLY shipping method used for snails because I've received them in a myriad of methods. Once I even received them simply wrapped in a wet newspaper and thrown into a small USPS priority mail box. Sadly, those snails did not survive their trip.

I've tried to develop a shipping method that is conducive to the snails' survival of the trip. Here's what I do:

I use disposable plastic containers (get 'em at Malwart for \$2.33 a pkg. of 4 to 8 depending on size). I poke a hole in the lid just big enough so I can squeeze a piece of aquarium airline tubing through without it collapsing. I leave the tubing long enough so I can run it to the outside corner of the box (this lets them have access to at least a little fresh air). I line my box with styrofoam that I buy at a local building supply store in sheets. You'll find these sheets near the house insulation. I think they're 2 ft. wide and 5 or 6 ft. long and come in a pkg of 4 or 5 sheets. After lining the box, I wrap the snails in VERY wet white paper towels (I usually wrap each snail separately in its own piece). I place them inside the disposable plastic container, put the lid on and let the airline tube stick outside the box at one corner. Then, I place a thick layer of quilt batting (also at Walmart) on top of the container.

For summer shipments: I put an ice pack on top (You can use a food sealer to heat seal water inside plastic bags and freeze them or you can simply put 5 or 6 ice cubes inside a ziploc baggie). You can also buy those gel pack ice packs that you hydrate, freeze and then use (I've recently purchased a pkg of 72 of these on ebay).

For winter shipments a heat pack would be substituted for the ice pack.

Put the styrofoam lid on top (remembering to allow the airline to hang out one corner and not to squeeze it so hard that it collapses). Close box top, tape. I tape all the way around the top of the box and then cut the airline tubing off even with the corner of the box (so it no longer hangs outside of the box, but just even with the corner). I ship USPS Priority and usually that's only about \$3.85 since the boxes seldom weigh more than a pound each. I only ship on Monday's so they have all five weekdays to reach their destination.

If any of you have different ideas or use different shipping methods, I'd love to hear about them! I'm always open to improvement! :)

Title: **Re:Snails in the Mail**

Post by: **Yvette** on **July 17, 2004, 01:44:59 PM**

Thanks Mast ;)

Could this be stickied for reference?

Title: **Re:Snails in the Mail**

Post by: **mastsnail** on **July 17, 2004, 06:19:50 PM**

Somebody beat me to the "sticky-ing", but consider it "sticky-fied". :)
Oh and it's no problem Yvette! Good luck! :)

Title: **Re:Snails in the Mail**

Post by: **guppiesRus** on **July 19, 2004, 10:52:24 AM**

Yeah, this is great! Im shipping some snails to my cousin for her birthday (the 26th). She had some other snails that just didnt want to stay in her aquarium..... (one crawled across the kitchen floor, was still alive in the morning when she found it... one laid eggs and died, the eggs were infertile.....) Over all, shes not had that great of luck with her snails. But beleive it or not, shes the one that got me into aquariums! I got two snails from their petstore, and one little tank. Well, over time everything multiplied, snails, fish, aquariums..... So basicly, the snails are going to be her thank you.

So thank you very much!

Title: **Re:Snails in the Mail**

Post by: **pwright** on **August 07, 2004, 04:45:42 PM**

I recently had an incident with snails in the mail....hmmm a rhyme. :-)

I ordered a "low light" plant assortment from an online vendor, and the assortment included 2 marble snails. When I got the shipment, the 2 snails were in a sealed plastic bag containing water. Well, both were dead.

I contacted the vendor, and they sent two more, this time wraped in wet newspaper. This time they survived, taking off as soon as they hit the water. I don't know if the method of shipment had anything to do with it...they could have just picked up 2 snails lying at the bottom for the shipment.

Title: **Re:Snails in the Mail**

Post by: **mastsnail** on **August 08, 2004, 07:00:31 AM**

I'm sure that sealing them in plastic isn't really a good way to ship them since there is hardly much air in a sealed plastic bag (unless you sealed air inside the bag with them much like shipping fish). If I were guessing, I'd say that your snails died en route. Very sad, really.

I'm posting a link to another thread on applesnail.net that references shipping methods. It was started by a lady who has had MANY successful shipments and she included pics with her information (for those of us that are visual :)).

Good luck in all of you shipping and receiving experiences!!

Here's the URL of that thread:

<http://www.applesnail.net/phpBB2/viewtopic.php?t=4934>

Title: Re:Snails in the Mail

Post by: mastsnail on October 17, 2004, 12:31:17 PM

I've made recent changes in my shipping methods in order to continue to improve mortality and health of the snails that I ship.

So, I thought I would post an update. Let me say, though that the Seachem Prime vastly improves the mortality of the snails. It neutralizes chlorine, chloramines and ammonia and detoxifies nitrite and nitrate. It's a wonderful water conditioner and I use it with every shipment. I also use it in my water changes and have seen vast improvement in the health of my tanks. I hope any of this information helps you!

Fasting snails for 24 to 36 hours prior to shipping is a good idea (although not completely necessary if a good water conditioner is used) to limit the amount of waste that will be deposited inside of the shipping bags. I ship year round, but in the summer when it's very hot I use ice packs and in the winter when weather is below 30°F either at my house or at the destination, I use heat packs. I get boxes from USPS free (order online). I buy styrofoam insulation at either Lowe's or Home Depot. Cut it to fit tightly inside of the box so the box is completely lined with styrofoam. I bag the snails wrapped in white paper towels with some water treated with Seachem Prime. I make sure there is twice as much air in the bag as water and I tie the bags (fish shipping bags - I purchase on aquabid usually). I use rubber bands to keep the bags closed tightly. I double bag if I'm using bags that aren't real heavy (2 ml is a heavy bag and I don't double bag when using that type). I ship USPS Priority Mail so the pkg. arrives in 2 to 4 days. I tell whoever is getting the package when to expect the pkg. and as long as they get the pkg. out of their mailbox asap after it arrives, everything is great! That's the long and short of what I do when shipping snails.

I work constantly to improve my shipping methods, but this is what it has evolved into over the course of shipping these little guys.

Title: Re:Snails in the Mail

Post by: Yvette on October 17, 2004, 03:02:34 PM

Mast, the last snails I ordered (from someone on applesnail), they were packed similarly to how you describe. wrapped in toweling in a plastic bag, with water and air. I have to say, I was very unhappy with how the snails arrived. all had shell damage from the shipping (not to mention from the seller's water conditions). every snail had damage at the front of their shell (and one had a broken spire-which was in the bag!) from being tossed about a bag that had way too much air in it. The snails hadn't been fasted and had soiled the water and toweling. I would caution that the snails have to be wrapped very very well using this method. Since there is air in the bags, that means there's room for them to get momentum when they go slamming into one another.

For my own shipping, I've adopted that first method you posted on in July and have had great success with it. I'm also not shipping on a large scale either and have only shipped to friends in that manner.

Title: Re:Snails in the Mail

Post by: mastsnail on October 17, 2004, 11:19:08 PM

I have to agree with you on this Yvette. It does leave room in the bag that can cause the snails to smash into each other. The best thing I've found to keep this from happening is to use a lot of

paper towel for each individual snail and not to pack more than 3 to 4 in a bag (for dime size and smaller) and no more than 2 adults in each bag wrapped carefully in a full paper towel each of their own. This will pad them from each other and keep them from finding their way out during the trip. I have actually not placed two large snails in the same bag for another reason. If one dies during the trip, the other is almost sure to die also in the same bag because of the rate of decomposition and the pollution of the water with the resulting ammonia.

Another thing I do is to pad around the outside of the bags after they're packed into the box with more paper towels or newspaper to keep the bags in place as the boxes are moved around a lot during shipping.

I use betta bags that are about 3" wide and 8" long. I sit them inside the box similar to the way I would pack an order for multiple fish.

It's never a good idea to ship a snail that hasn't been fasted because they will continue to create a lot of waste for at least 24 hrs. following the last meal they had. Fasting fish is done for the very same reason.

I would encourage anyone shipping aquatic snails to use a water conditioner in clean tap water (not tank water) for pkg. the snails. I highly recommend Seachem Prime or something as suitable for the ammonia issues that are going to arise during shipping.

Using the other method, I was experiencing some losses of snails. I do not even pretend to know why, but to lose even one shipment is unacceptable to me. So, I'm constantly trying to improve on my method. Perhaps I have not found the absolute best method, yet. But, I've had feedback from 6 shipments done with the bag method and all of the snails arrived safe and undamaged. I hope my luck with this method continues to hold. :)

Title: Re:Snails in the Mail

Post by: mastsnail on February 18, 2005, 12:57:41 PM

Well, I've revisited my shipping methods and I've made a few changes this year to increase successful shipments.

I use the large Priority Shipping box from USPS unless I'm only shipping 5 or 6 snails (in which case I use the smaller one). I line that with R-4 house sheathing cut to fit very tightly inside of the box (I buy this at a local building supply and it's 3/4" thick polystyrene).

I ship snails (no more than two to a bag if they're small and no more than one to a bag if they are larger than dime size) in a juvenile fish bag (4X10" flat polybags) with about an ounce of water that's been treated with Seachem Prime. No more paper towels. Just snails and treated water.

I double bag. Then, I nest the bags inside of shredded newspaper. I tape a heat pack to the inside of the lid (the house sheathing lid), seal the box up and away they go.

I will never use the gladware container method of shipping again. It's too stressful. I've received two shipments of baby snails this year that were dead and the only difference between the seller's shipping method and my own was they used a gladware container, painstakingly wrapped each snail in a wet paper towel and poked air holes in the lid of the container.

My theory on this: The heat pack uses oxygen to operate, so the snails suffocated in their container. Using bags the snails have their own air source that the heat pack can't rob. I use an airhose off one of my airpumps to inflate the bags with good air. They don't have to be shipped like fish (less water and air is normally sufficient for snails), but they need air to survive and the heat pack robs them of the air once inside the box unless they have their own air source.

I'm not going to ship snails in a gladware container again. And I'm not going to buy snails from someone who does unless it's a spring or fall shipment when heat or ice packs don't have to be used.

It's too sad to receive a shipment of a dozen or more snails that are dead and smelly. :(And most hobbyists don't do replacement shipments for DOA's. :(

Title: **Re:Snails in the Mail**

Post by: **Mickel** on **March 21, 2005, 08:37:22 PM**

Can you send snails to australia :D

Title: **Re:Snails in the Mail**

Post by: **masocchicka911** on **June 13, 2005, 09:41:32 AM**

thats a good way to ship snails i will have to try it

Acclimating Inverts

Post by: **bulrush** on **July 11, 2006, 10:07:07 AM**

Here's a quick guide to acclimating inverts and shrimp to a new tank. Mods, could you sticky this? I think it would help solve one of the more common problems with shrimp dying soon after they are put into a person's tank.

Shrimp and inverts are not only sensitive to ammonia and nitrites ("bad" stuff in the water) they are sensitive to CHANGES in water parameters, such as temperature, and pH changes. So if the pet shop had one pH, and your tank has another pH, that could be a problem.

Here's how I acclimate all my fish and inverts:

- Hang pet store bag inside tank. Clip to rim with a binder clip.
- Using a turkey baster, remove 1/2 of the water from the bag and throw away.
- Using turkey baster, add 2 turkey baster fulls of water (about 1/4 cup) from the tank to the bag. Wait 5 minutes. Repeat 2 or 3 more times.

This allows them to get used to the tank temperature AND pH and other water parameters gradually. Since I have done this I have not had any deaths within 30 days of putting shrimp/fish into a tank. (Guppies excepted, I hear guppies are notoriously hard to keep alive because of the bad conditions they are bred and kept in at the commercial breeders.)

Title: **Re: Acclimating inverts**

Post by: **Zero** on **July 11, 2006, 10:09:33 AM**

My Version:

You should first fill the pet store/breeder's bag with tank water as well. Do this by using a turkey baster or 3/4 cups of water every 5 minutes. Once the bag is full, then dump out half the water into a bucket, sink, etc. Then fill the bag again by using the turkey baster until full, fish out the animal(s), dispose of all the water in the bag into a bucket or sink. The procedure should take at least an hour.

Blue Marron

By: nipper

Common Name: Blue Marron

Latin Name: *cherax tenuimanus*

Origin: originally from Western Australia

Temperature: 15-22°C (59-72°F)

Ease Of Keeping: Medium

Aggressiveness: highly aggressive towards slow moving fish

Lighting: Primarily nocturnal, will come out in low to medium lighting.

Adult Size: up to 30 cm, 1 foot

Minimum Tank Size: 20 gal is fine until 8 inches, then a larger tank (55 gal) is needed

Feeding: Omnivorous, yabby pellets, small amounts of meat, plant material, carrot, cucumber.

Spawning Method: sexual reproduction.

Ph of 7.2-8.5

dH 8-20

The males have a pair of nodules at the base of the 5th set of legs, and the females have flaps at the base of the 3rd set of legs. They are good escape artists and will use anything to get out of your tank.

When moulting, they will hide more often and will not eat. They can also lay on their backs and flick their tail, trying to kick themselves out of their old shell

Do not remove the old moulted shell from the tank; the Marron will eat it to strengthen its new shell.

To pick up the Marron, it has to be grabbed by the thorax, behind the head and claws, otherwise it will get you with its claws.

Will regrow lost limbs (claws, legs)

A longer day cycle and slightly raised temperature will induce breeding. Be warned, the 300 babies require accommodation away from mummy, she will eat them.

A Marron will need a home, a cave to hide in. I use a piece of black polythene pipe buried under rocks at the back of my tank.

Lots of plant material. That way you only need to feed it 3 times a week.

Will attempt to move 'upstream', so outlets for filters should be Marron proof.

Big, big oxygen users. Produce a lot of CO2 for their size.

Bacterial Infections of Apple Snail

By Kristi Dorn

This experiment was not controlled and not done in sterile conditions, it was not funded or sponsored in anyway by Maracyn Plus and its producing company. In no way is this a guarantee that this product will cure your problem. Please see warning about different species below.

Bacterial Infection of *Bridgesii* Apple Snails
Extent ranging from mild to severe infections

Symptoms: Spots, shrunken tissue, back flipping with foot exposure, paralysis.

Progression: Snails develop discolored spots on their foot tissue. These spots spread, and everywhere the spots have developed tissue shrinks. Shrunken foot often has a 'brain' like surface, at first and then resembles more of a raisin. Finally, the foot becomes paralyzed and unresponsive. The snail's face and antennae often seem to remain active, however the snail can not reach food and will starve if not put down.

Cause/Onset trigger: Cause is unknown but became apparent after 20-30 degree warmer than normal weather. Temperatures reached 90-95 degrees, tanks temps in the mid to upper 80's despite use of ice. Heat is obviously a factor in bacteria growth.

Treatment timeline: Temperature lowered via ice and cool air (after heat wave diminished). The standard treatment of 'Melafix' and cool water did not help my snails. This was done for 8 days. After treating for 8 days, and having to put down several paralyzed snails it became clear this was either not the correct treatment (source other than bacterial) or a very resistant bacteria needing stronger antibiotics.

Next I experimented with 'pimarix' the sister product to 'melafix'. There were horror stories about this product killing snails, but after 3 doses at 72F I lost no snail to this med. I didn't see much of an improvement, if any at all.

At this point the snails had been sick for 11 days. With no luck, I called around to local vet offices until I convinced a Vet to take a look at a sample under a microscope. My worst fear was confirmed, this is a bacterial infection, and was resistant to the only snail safe medicine known.

Maracyn Plus: Deadly to Snails....or Not?

It's widely accepted that the only snail safe treatment is melafix. Tetracycline is also believed to be SAFE for snails at a 1/2 dose. However this level of antibiotic is believed to be too weak to destroy harmful bacterial infections.

Maracyn Plus is a new medicine in the market, a strong one at that. It contains two powerful antibiotics and an 'ion filming agent'. This agent allows the medicine to 'stick' to the fish and the infection. It also prevents re-infection in fish. I'm hoping the same results will occur with the snails.

Testing Maracyn Plus:

Maracyn Plus is used for 7 days. It's dosed on Day 1, 3 and 5, and a water change performed on day 7 to remove any left over meds.

I began testing this product on June 11th 2006. I created two groups of 'test snails'. These are small snails from a grow out tank. The tank has possibly been contaminated through aquatic plant transfer, but only 1 snail has shown symptoms. The snails being tested are healthy, but small so should show distress from toxins rapidly.

Testing Round One: Day 1

Test group 1 received 8 drops of the medication per gallon. This is a ½ dose of the medication. When no one immediately died or climbed out of the water, test group 2 received 16 drops of the medication. No one immediately died, and no one has passed over the first 2 days.

Day 3

The test subjects were re-dosed today, still no deaths at 8 drops or 16 drops.

Day 5

This is the last dose per the bottle directions, both tests groups survive the final dose (8 drops and 16 drops respectfully).

Testing Round Two

Once the healthy experimental group passed the survival test, I began 'testing' the product on an ill snail. I selected a Dark Striped Purple Brig, who had significant spotting and shrinkage of the foot. The snail was still mobile and began treatment in a 2.5g jug. This snail survived both a dose on Day one and day three of it treatment. It continued to live through the final dose, and began to eat with gusto, like a healthy snail should. He was not fully recovered, but with an additional round (so 14 days) he seems to be putting on weight (and restored foot size) and has no more spots.

Treatment with Maracyn Plus:

Despite this Test Round Two not being complete, I did a very bad thing (which ended up being okay), I started treated my tanks. I was desperate and things were rapidly going south for those not being treated. Both the main tank and a 'sick tank' I had put the worst cases into, got their first dose. The second and final doses came in the following days. I saw some improvements. A second round left my main tank (with the milder cases) all but healed. I am now on a third round (basically an extended 2nd round) on this main tank. I had one or two cases which did not heal up completely and I want to be 1000% sure this thing is gone. I do not plan to use a fourth round on these guys, but will follow up with melafix to help them heal.

My sick tank contains the most severe cases. Two were able to move out of this tank, and into the main tank as they improved. Remaining in this tank are 5 snails, 2 purples, a pink and 2 blues. I'm fairly sure that one of the purples and one of the blues are losing the fight; they are completely paralyzed and eat only if placed directly on food. The blue is a male and yesterday could not hold in his penis sheath, leaving it hanging out and exposed, today this condition is gone but this is never a good sign. The other 3 seek out food... though they have some paralysis and move very slowly. Maracyn Plus does not seem to help them once they are fully paralyzed. I honestly don't know if any of these 5 will recover. I plan to pull the meds tomorrow and do another round of melafix/pimafix before trying a 4th round with them.

Conclusion:

I have tested Maracyn Plus exclusively on Bridgesii Apple Snails. I have tested multiple age groups, snail sizes, temperatures and container sizes. I've found a slight reduction in bioload the biological filter can handle, but this can be countered with lots of live plants. Small snails, medium snails, breeder sized snails and golf ball size adults all tolerate the medicine at the recommended dose. I've used it in room temperature buckets, 2.5g buckets, and in heated tanks (in 5g, 10g and 20g). No snail has died resulting from the meds. The only snails to perish were in extremely poor health and died as a result of the severity of their condition.

Warning!

This medicine has not been tested on Rams, Marisas, or other species of apple snails (cana, hamstrum, ect.) Using with such species should be done with care until it's safety is further studied by breeders of these species.

Zebra Nerite – Snail



Zebra Nerite © Ben Sisko



Zebra Nerite © Ben Sisko
By Ben Sisko

Common Name: Zebra Nerite

Latin Name: *Neritina natalensis*

Origin: South Africa

Temperature: 72-77°F (22- 26°C)

Ease Of Keeping: Easy

Aggressiveness: Peaceful

Lighting: dim to bright

Adult Size: 2 inches (5cm)

Minimum Tank Size: 5 gallon

Feeding: almost exclusively algae

Spawning Method: virtually impossible

Comments: *Neritina natalensis* is a beautiful snail that has a light brown shell with black stripes running down it. It's body is grey with black lines running all around the animal.

I have read information from some sources stating that this species lives in freshwater and other sources saying that this is a brackish water species. Since I have kept the snail successfully in both, I'm not sure.

They are and extremely easy animal to keep and will do fine in any tank set up. But to keep them in tip top shape I would recommend you keep them in water with a pH of no less than 7.0, and if you really love these snails you can add some extra calcium to their water in the form of drops or crushed coral gravel. They can tolerate both cool and warm water although they move around much quicker in warmer water. They also appear to be more active at night. The only bad habit they have is that they tend to crawl out of the water from time to time so a secure cover over your tank is a good idea, unless you want snails exploring your home.

They almost exclusively eat algae and do not seem to harm plants at all. I have had them in a very heavily algae grown tank and they cleaned it up in a matter of months, to the point of needing to find extra food sources (I ended up leaving the tank light on more so that there is a constant source of algae in the tank somewhere). When keeping these snails I suggest having at least some algae in the tank to keep them fed.

When well fed they will lay lots of eggs which in most cases do not hatch. It has been reported that the eggs might hatch in brackish water but there has never been any breeding of this species in captivity as of yet. I am presently keeping the snails in both fresh and brackish water tanks in an attempt to breed them and have not had any young so far. Thier young apparently start out life as free swimming larvae which settle into a crawling life as they get older so if you want to breed them, you better use sponge filters in their tank so you don't suck up any babies.

I feel that these snails are the best snail for freshwater tanks because they are very beautiful, they don't breed, they don't harm plants, they clean up algae very efficiently and they are fun to watch!

I highly recommend this species!

Name: Curtis H.T LeBlanc

Comments: Breeding these guys is sort of hard, the babies really do best in brackish and can even do well in full marine conditions. In the wild there is supposed to be a lot of lime stone in the area they are found. It is thought that these snails need this to hatch out. Donya from applesnails.net has had success with breeding nerites I believe with limestone. There are many many many different types of nerites from all over. For example some olive nerites are found in Florida. They have been found in fresh, brackish and full marine conditions.

Name: Marc

Comments: I got some *Neritina natalensis* in a 6.3 pH freshwater tank with lots of plants. I notice that the male (smaller) climbs on top of the female and hitches a ride while the female lays eggs all over the place. I never saw it, but I suppose that the male ferterlizes the eggs while they run around. This behavior started a month ago or so and the bright white eggs turn yellow and rot away. No success yet. I suspect I would need slightly salty water. I read somewere that the snails come from South-Africa.

Triops - Bizarre But A Great Tank Addition

Post by: **CompletePondCare** on **August 28, 2005, 05:11:11 PM**

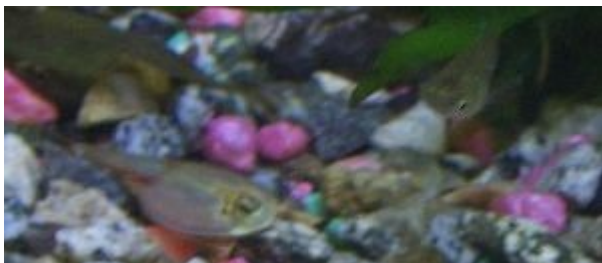
If you're looking for a tank trashman that's more interesting to watch than ghost shrimp, easier to maintain as live food than brine shrimp or blood worms, when offered as live food for fish will stay alive in the community tank until it's either eaten or has grown too large to be eaten, and never fails to get a shocked reaction of, "What the #&%@! **IS** that thing?!" from people who've never seen one before, look no further than the hardy and hardworking Triops.



Triops © CompletePondCare

I just LOVE my Triops! It's a tank cleaner that truly eats detritus---not mostly algae, like most other so-called detritus-eaters; this guy is like an aquatic earthworm---, leaves your fish alone, never seems to stop moving, isn't very picky about water conditions, and reproduces so easily and copiously that it's a snap to keep a culture of hatchlings going for live fish food.

The Triops is a freshwater crustacean that's survived completely unchanged since the Triassic era. It's built a lot like a tiny horseshoe crab, with a hard shell on top, WAY too many legs underneath, and grasping claws at the front. Like some killifish and lungfish, it relies on 'diapause' for reproduction, making it very easy to hatch out from dry eggs. Its life span is short, only about 40 days on average, and it typically grows no larger than about 2"---though there's one monster on record that made it to 3". The one in the photo above is about 1 3/4" long. Here's another pic, with an adult, female Endler's Livebearer at the right to give some idea of scale:



Triops with a female Endler © CompletePondCare

Triops eggs are hatched in a small container of spring water (I use Aquafina bottled water) seeded with a small amount of tank or pond detritus, to make the water a little acidic and to provide microscopic food for the hatchlings. Since they don't require filtration or aeration, and do fine from room temperature up into the 80's, you can keep your culture in an old spaghetti sauce jar on the kitchen counter---just keep it out of direct sun. If you're hatching out large numbers to use as live fish food you'll want a bigger 'tank', but you still don't need filtration or aeration. The eggs hatch overnight into tiny, daphnia-sized nymphs. They can be fed on detritus as they grow, or with the pelleted food you get with a Triops starter kit. Mine seem to grow out just fine on nothing but small,

weekly additions of pond muck to their tank. If you go the pond muck route, do be careful that there aren't other carnivorous critters in the muck large enough to eat your Triops.

From the day they hatch, Triops double in size and molt every day until they reach sexual maturity, at about 10 days old and 1- 1.5" inches long. They continue to grow after that, just not as quickly.

Triops are cannibalistic, so even if you're not netting them out to feed to your fish you'll notice their numbers decreasing as they grow into adulthood. At that point they're too big to be eaten by my Endler's and Killies, so I like to keep 1 - 3 adult Triops in each of my fish tanks to live out the rest of their short lives as tank janitors. Despite having three eyes they're practically blind, and since I'm putting them into the tanks at roughly the same size, cannibalism is no longer a problem. They have plenty to eat in the tanks anyway between detritus and fish food, and there's nothing quite as comical as the sight of a Triops that's happened onto a blood worm and is trying to wrestle it into submission. I swear, it's like watching a puppy rolling around on its back with a chew toy!

Sexually mature female and hermaphrodite Triops drop about 300 eggs a day---each! Eggs are tiny but are easily harvested by simply allowing the tank to dry out completely after the last adult dies, using a dry paintbrush to gently loosen the egg-laden, dried detritus, and then pouring the dried egg/detritus mixture into a jar for up to 15 years of storage. Storing the eggs in the dried detritus in which they were originally deposited makes creating new cultures of Triops as easy as dumping a spoonful of your dried culture into a new jar of spring water.

You have to buy your first batch of Triops eggs, but the kits are inexpensive and easy to find online and in education-supply stores. The kits include a 'teabag' of dried detritus (which can be dried out and re-used over and over, since it gets re-seeded each time you use it) and food, which are both needed if you haven't got access to a pond. Once you've got your first crop of adults, future egg supplies should never be a problem.

Here's a website with lots more excellent Triops info, including a simple and foolproof approach to egg harvesting & storage:

<http://mytriops.com> (<http://mytriops.com>)

Title: **Re:Bizarre But Great Tank Addition**

Post by: **Mellyn** on **August 29, 2005, 09:24:01 AM**

I tried hatching my triops but they all died on about the third day. They were in distilled water and hatched all right. I had about 7. At first I had the light on for 24 hours. I turned it off at night. Then I noticed the little bugs weren't moving anymore. Any suggestions to what I did wrong or what to do next time? I think they might have gotten cold since they were in the living room.

Title: **Re:Bizarre But Great Tank Addition**

Post by: **CompletePondCare** on **August 29, 2005, 02:06:37 PM**

You do need to keep the temps between 72 - 84F for hatching, but once they reach sexual maturity they seem able to tolerate a wider range.

Title: **Re:Bizarre But Great Tank Addition**

Post by: **SerVo** on **August 29, 2005, 05:26:41 PM**

Well i don't think it would have been water related or they wouldn't of hatched. Most likely they starved to death due to no protzoa/ microscopic life in the water (ditrius packtes add this to it). If the ditrius got moisture in it, it is enough to reek havoc on the microscopic life, but the eggs untouched.

Title: **Re:Bizarre But Great Tank Addition**

Post by: **CompletePondCare** on **August 29, 2005, 10:07:30 PM**

SerVo - I don't understand what you're saying about the detritus getting wet...the detritus 'teabag' gets soaked when you put it in the Triops hatching tank, and if you're supposed to leave it in the tank for the first 7 days if you're using that form of detritus.

I've found several blogs from Triops enthusiasts who claim to have successfully used that detritus 'teabag' over and over, drying it out in between uses, so even if the bag were exposed to moisture while stored in the kit, unless it stayed wet I'd think it'd still be OK. Is your experience different?

Title: **Re:Bizarre But Great Tank Addition**

Post by: **magickzzi** on **September 06, 2005, 05:49:23 PM**

Aww.. I miss my triops.... maybe I'll try them again.

Title: **Re:Bizarre But Great Tank Addition**

Post by: **Mellyn** on **September 07, 2005, 09:44:40 AM**

I got another batch of eggs. I don't think they starved b/c I put a drop or two of infusoria in there when I saw a few had hatched. I think they must have gotten cold.

How much light do they need? For the next batch I was planning on putting them on top of my mini fridge in my room. It is nice and warm. They'll be next to a window with a curtain that lets in about 50% of the sunlight. Would this be suitable? Will they need light for the first 24 hours? (I read that somewhere)

Title: **Re:Bizarre But Great Tank Addition**

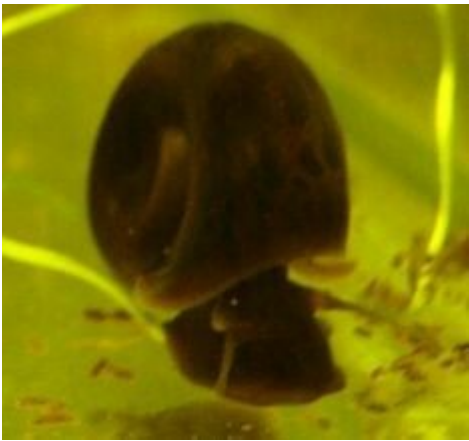
Post by: **CompletePondCare** on **September 07, 2005, 03:16:13 PM**

I hatch mine on the kitchen countertop, beneath a Spacesaver radio/CD player that has a light underneath it. They get some light, but not a lot. It sounds like your location will be OK, so long as the water doesn't get hotter than 84F. I've had a couple of attempts that failed too, so don't give up yet. Good luck!

Snails In The Aquarium



The Pond Snail



A Ramshorn snail in a fry tank



A baby Apple Snail

Some people love them, some people hate them. Snails would probably be more welcome in aquariums if they weren't so prolific. They do serve as good aquarium janitors. they will eat any leftovers, gathering it all up, processing it and then leaving it in convenient little packages known

as "snail droppings". Snail droppings are much easier to remove than the fine crud that they eat, hence the snail is a very valuable addition to any fry tank.

Snails are very easy to reproduce, you don't get any BAP's (breeder award points) for breeding snails. In fact the worst trait of just about all snails is the fact that they will quickly overpopulate any tank, in a matter of weeks.

Universally the least liked or most under appreciated snail is the Pond Snail. It usually gets into your aquarium on new plants. Since these are native snails and sometimes harbor parasites and other nasties they are considered a real pest.

The Ramshorn is generally more well liked by many, but it still has the potential to overrun a tank in short order.

The Apple Snail is more well thought of by most aquarist. They are big, sometimes approaching the size of an apple (hence the name) and since they lay their eggs above the water line in easy to see, and easy to remove, light colored masses they aren't too hard to control.

Pros and Cons

Pros - Snails help to keep an aquarium clean by eating left over foods and cleaning up the algae that gets on the aquarium glass. And some people really enjoy watching snails.

Cons - Snails reproduce fast. They will quickly overpopulated an aquarium and they are not easy to completely eradicate once a tank is "infested". Many snails eat live plants, a definite no-no for any plant lover.

Getting Rid Of Snails

A lot of people just don't want to kill the excess snails. I can relate to that. But theres no birth-control pill for snails. So what to do with the excess snails is generally a problem.

There are several ways to remove snails, first, but least effective, is to remove them by hand. This is usually a losing battle.

Poisoning with copper based snailicides is another option but the treatment might have a bad effect on fish and plants. I do advocate the use of "Had-A-Snail" for treatment of some diseases, but I don't use it for snail control. Poisoning leaves you with a lot of dead snails, hard to find and some are always left to rot in the tank.

My choice of snail removing is to use a small glass or plastic bottle. I just put something in the bottle that the snails find irresistible, such as a piece of shrimp. Lay the bottle down on the gravel and push it in a ways so that the opening is even with the gravel, overnight the snails will have congregated inside the bottle for easy removal, repeat as often as nessasry. What you do with the snails now is up to you.

Another more natural snail eradication program would be to use snail eating fish such as Clown Loaches and Puffer Fish.

Name: andre

Comments: My favorite way of removing snails is by getting fish that eat snails. Apple snail don't reproduce as often as some other snails.

Snail Eating Fish

- Clown Loach

- Yoyo Loach
- Skunk Loach
- Upsidedown Catfish

Calcium Rich Foods For Aquatic Snails

By Susan Mast

This is a list of vegetables and fruits along with the amount of calcium in each 100 gram portion.

They are ranked in order from the ones that contain the most calcium to the ones that contain the least.

I would caution us all to remember when feeding these foods that the phosphorous contained in these foods can have an ill effect on your water quality and may cause an algae bloom if the levels of phosphorous become too high.

In my experience, it is best not to feed too much nor too often. I usually feed these types of foods the evening before a 25% water change. However, the choice, as always, is yours.

Vegetables	Calcium per 100 gram
Dill Weed	208 mg
Turnip Greens	190 mg
Collards	145 mg
Parsley	138 mg
Kale	135 mg
Watercress	120 mg
Beet Greens	119 mg
Chinese Cabbage	105 mg
Mustard Greens	103 mg
Chicory Greens	100 mg
Spinach	99 mg
Okra	81 mg

Leaf Lettuce	68 mg
Cilantro	67 mg
Purslane	65 mg
Endive	52 mg
Swiss Chard	51 mg
Broccoli	48 mg
Cabbage	47 mg
Rutabaga	47 mg
Brussel Sprouts	42 mg
Celery	40 mg
Sweet Potato Leaves	37 mg
Green Beans	37 mg
Romaine Lettuce	36 mg
Parsnips	36 mg
Head Lettuce	32 mg
Alfalfa Sprouts	32 mg
Squash (winter, all varieties)	31 mg
Turnip	30 mg
Carrots	27 mg
Kohlrabi	24 mg

Sweet Potato	22 mg
Cauliflower	22 mg
Asparagus	21 mg
Pumpkin	21 mg
Squash (summer, all varieties)	20 mg
Beets	16 mg
Cucumber (with skin)	14 mg
Red and Green Peppers	9 mg
Tomato	5 mg
White Corn	2 mg

Fruits **Calcium per 100 gram**

Seedless Raisins	49 mg
Orange	40 mg
Lime	33 mg
Blackberries	32 mg
Kiwi	26 mg
Lemon (no peel)	26 mg
Papaya	24 mg
Raspberries	22 mg
Sweet Cherries	15 mg
Strawberries	14 mg

Tangerine	14 mg
Apricots	14 mg
Grapefruit, White	12 mg
Grapefruit, Red & Pink	11 mg
Pear	11 mg
Cantaloupe	11 mg
Grapes	11 mg
Mango	10 mg
Watermelon	8 mg
Persimmon, Japanese	8 mg
Pineapple	7 mg
Apple (with skin)	7 mg
Cranberries	7 mg
Banana	6 mg
Honeydew Melon	6 mg
Blueberries	6 mg
Casaba Melon	5 mg
Nectarine	5 mg
Peach	5 mg
Plum	4 mg

Proper feeding will result in a happy healthy snail.



© mastsnail

Red Claw Crayfish

By: Evan G.

Common Name: Red Claw Crayfish

Latin Name : *Cherax quadricarinatus*

Origin: Australia

Temperature: 70-78°F (21-26°C)

Ease Of Keeping: Medium due to large size and escape efforts

Aggressivness: Males extremely aggressive, females mildly aggressive

Lighting: Dim lighting if any

Adult Size: 12 in. (30cm) maybe bigger depending on temperature and diet

Minimum Tank Size: 55 gal. at adult size. I house mine in 20 gal. till about 8 in.

Feeding: Shrimp pellets. No raw shrimp. Algae wafer plants snails fish.

Spawning Method: Egg-layers. After the females mate they wait anywhere from 1-3 months before eggs move to their "swimmeretts" under they're tails.

Comments: This crayfish is a true joy (as much as a crayfish can be). This species is a dark vibrant blue. The males in this species have a large bright red patch on his claws that makes him look stunning. This species gets quite large at about a foot. They need at least a 55 gallon tank once they reach adulthood. This may take years to reach. I've had both males and females. The males are extremely aggressive. My male when I brought him home I put him in a tank with a female and I walked in a week later and found him ripping her limb for limb. These crays are solitary animals. They can't be kept with any other live creatures including plants. They are excellent escape artists. My male just last week got out twice in two days and I had to resort to duct taping the entire top of the tank. All in all these are an interesting but large crayfish to have.

Name: jezza

Comments: Red claw's should ideally be kept in water with a ph of between 6.5-8 and at a temperature of 25-30°C or 77-90 °F. Red Claw are usually found in murky water. The red spots on the male's claws are quite soft and are used for feeling around, as their eyesight is quite poor. As in the previous comment the red claw are quite good escape artists, and exceptional climbers. I have even myself experienced my own red claw (appropriately called nipper, due to what he did to my cat) climbing up curtains, fly screens, fish tank air supply hoses and fish tank weed in attempt to get outside.

When putting more than one red claw into a tank I highly recommend removing the red claw(s) from the tank, rearranging it completely, make new homes for the both/all the red claw then add both/all to the tank simultaneously. This usually makes the red claw think they are in a completely

new environment and both/all settle in quite well. I also highly recommend covering the tank with a lid, glass being best due to its weight, but crayfish have been known to put their pincers into the ground and flick their lids off using their tail, or alternatively, hook their tails over the edge of the tank and pull themselves up and fall the rest of the way out of the tank

Red Swamp Crayfish



By: shuang

Latin Name: *Procambarus clarkii*

Origin: Southeastern USA

Temperature: 20-28°C 68-83°F

Ease Of Keeping: Medium

Aggressivness: Sometimes Very Aggressive

Adult Size: Up to 5 inches, 12.5cm

Minimum Tank Size: 5 gallon

Feeding: Fish food pellets

The Red Swamp Crayfish is native to Louisiana, and often used as a food item. They can tolerate fresh or brackish conditions in the aquaium. Mine is not really aggressive and gets along well.

Marisa Cornurieties - Giant Colombian Ramshorn

BASIC CARE SHEET

By: Stephanie Dodson

Congratulations! You are now the proud owner of a lovely Marisa. This sheet contains the basics you should know in order to keep your new pet healthy and happy.

SOME FACTS:

Marisa generally mature at approximately 2 inches in diameter and are characterized by a ramshorn shape, breathing siphon, 2 sets of tentacles (1 located by the mouth and one near the eyes) and an operculum (trapdoor).



Giant Ramshorn Snail © Susan Mast

They are either brown, gold or striped chestnut/gold in color.

Unlike other ramshorns, Marisa are NOT asexual. You must have a male and a female to reproduce them. If water conditions are optimal and food supply is adequate, they may mate and lay aquatic eggs on plants or decorations. If you do not want to raise baby snails, simply siphon the eggs out or hand pick them off. The eggs will hatch within a few weeks. Babies are very small and translucent when they've hatched. They can be difficult to see. They will usually remain in the gravel, scavenging food, until their shells begin the hardening process. After a week or so, you will see them gradually appearing from the gravel. In time you will see the coloration come in on the shells and they will grow like weeds. They should be fed the same diet as the adults. Take great care to either cover your filter intake with a sponge, securing it with a rubber band, or to check your filter pad regularly for any babies sucked inside. Many times the babies will be fine and just need to be placed back into the tank.

WATER REQUIREMENTS:

Like most aquatic pets, your snail requires de-chlorinated water. You can use any readily available de-chlorinator product from most stores as long as it does not contain any medications or metal derivatives. We use Wardley De-chlorinator.

FOR HEALTHY SHELL DEVELOPMENT:

Your tank pH level must be around 8.0. You can purchase pH testing kits at your local fish store or Wal-Mart. To improve your pH level, you can utilize one of various remedies. Add cuttlebone (from the bird section) but be sure to remove the metal clip before adding it to the water. Partially bury the cuttlebone in the gravel so it doesn't float. Some people use crushed coral to replace the gravel. You could also try adding seashells to the tank. Just be sure none of the snails can lodge themselves inside any of them. To prevent this without fail, use "clam" type shells or shells much smaller than the snails themselves. I've also heard of people using reptile calcium supplements but have not used them myself.

DIET:

Marisa have voracious appetites and will likely ravage planted tanks. Therefore, we suggest keeping them in non-live plant tanks or in tanks you wish to discourage plant growth in.

It will be necessary to provide food for your snails, in addition to what they scavenge from your fish. Adequate foods include: Algae Wafers, Tropical Tablets, sinking shrimp pellets and any other types of sinking food for scavengers like catfish & loaches. They also enjoy rinsed canned green beans, washed fresh romaine lettuce & washed fresh spinach (also a good calcium source).

APPROPRIATE TANK SIZE & ROOMMATES:

The general rule of thumb for tank size is 2.5 gallons per snail. This, of course, depends on the adequacy of filtration & aeration. Your tank must also be totally covered. If your hood has holes, like many do, where the filter & heater hang – simply use aluminum foil shaped to securely fit the holes and poke some ventilation holes in it with a skewer. Similarly, other people have told me they use duct tape to cover the holes. **Marisa (and other Apple Snails) can and do leave the water.**

Good fish roommates for snails include, but are not limited to, Danios, Guppies, White Cloud Mountain Minnows, Neon Tetras, Cory Catfish, etc. All of these are non-aggressive fish that cohabitate easily with snails.

Some definite fish to avoid (in most cases) are: Oscars, most Goldfish, Cichlids, Angelfish, Puffers, Loaches, Barbs (most species) and some Bettas.

Additional Questions?

I encourage you to visit www.applesnail.net to learn more about Marisa and other types of Apple Snails. It is your "one-stop-shop" for information and is invaluable to snail-keepers worldwide. **This is not my website. But you will find it an invaluable resource in your snail keeping venture.**

How To Raise Ghost Shrimp Cheaply And Efficiently

By "ghostiebreeder"



A Ghost Shrimp



Ghost Shrimp Habitat

Take females bearing eggs out and place into a critter keeper or gallon betta bowl containing a few drops of ammo lock, a few pinches of iodized salt and an air line that constantly oxygenates.

When you see little green nauplii, remove into a grow out tank with a straw (just suck em up) or a brine shrimp net.

The grow out tank should have the same conditions as the collecting tank

Place a few fish flakes and the air line will make the flakes small enough for the fry to filter feed

Frequent water changes are a must (every two days or so) and this eliminates the need for a filter that will suck up your nauplii

If you put enough food with the females, they will not eat the little fry long enough for you to collect them and move them

I have done this and as of now, my little shrimpies are free swimming, have molted a few times and look like mini versions of the adults. I've only lost about three or four out of a hundred or so. They are about a week and a half old (and i am still collecting)

A note on collecting the nauplii: the eggs will start out a dark green and eyes will not be visible. when they turn a light army green and you can see eyes, it means the female is getting close. if you see a few hanging off the female's swimmerettes, it means that she is ready and you should keep an eye peeled. eggs that are separated from the mom do not hatch in my experience (I have removed eggs from dead females with forceps and they die in a day)

For collecting, either I put the moms in a broad container with 3 inches of water and suck up the nauplii in a straw (by placing finger over end of empty straw and then letting go and quickly replacing once the shrimp are in) or I use a brine shrimp net. either works...

Just throw in some fish flakes; enough so that there are some left at the end of the day. Before you go to bed, be sure to remove the uneaten ones and replace with fresh ones. As long as there are flakes left, it means she is not hungry for babies.

Notes:

To remove external parasites, just take some of the shrimp in a net and dip them in a marine saltwater environ for 5-10 minutes. this will kill the parasites without killing the shrimp, but no longer than that. As for internal parasites, fish in the wild do not ingest sterile food, so your fish should be fine as well. The guys at the fish shop I go to swear by this method (and they love their fish so I take their word for it)

An air line is pretty important if your bowl is not well stocked with plants and it seems a bit small...

It's good to put a lot of plants into your 10 gallon (lots of elodea is good - good for o2 and denitrifying) and putting the mother shrimp in there. When she has released her babies, you can take her out with an ordinary green mesh net as the nauplii will just slip through the holes. If you have no air line, that means you have to feed your little guys baby brine shrimp as the air line helps to break up crushed and disperse the fish flakes.

***Pomacea Bridgesii* - Mystery Snail**

BASIC CARE SHEET

By: Stephanie Dodson

Congratulations! You are now the proud owner of a lovely *Pomacea Bridgesii* Apple Snail. This sheet contains the basics you should know in order to keep your new pet healthy and happy.

SOME FACTS:

Bridgesii generally mature at approximately 2 ½ inches in diameter and are characterized by a breathing siphon, 2 sets of tentacles (1 located by the mouth and one near the eyes) and an operculum (trapdoor).

They are the most colorful of all Apple Snail species ranging in color from the wild brown, gold, albino, chestnut, blue, jade and even shades of purple and burgundy with or without stripes. No wonder they are the most readily available of the group.

Unlike most other snails, Apple Snails are NOT asexual. You must have a male and a female to reproduce them. If water conditions are optimal and food supply is adequate, they may mate and lay light-pink colored egg cases above the waterline, typically on the side of the tank or occasionally on the tank lid. If you do not want to raise baby snails, simply remove the egg cases and discard them. If you want to try hatching them you can leave them where they were placed and the eggs will hatch within a few weeks. Sometimes the egg cases slide off and enter the water. If you see this happen, remove the egg case from the water immediately. The babies can drown at this stage.



© Stephanie Dodson

You can fashion a hatchery tank out of a plastic container with water in the bottom and a homemade rack constructed from plastic canvas available at the craft section of most any discount store. The most important things to remember are that the egg cases must remain out of the water, warm & fairly humid. That means keep the hatchery tank covered & in a warm spot. Babies are very small and translucent when they've hatched. They can be difficult to see. They will usually remain in the gravel, scavenging food, until their shells begin the hardening process. After a week

or so, you will see them gradually appearing from the gravel. In time you will see the coloration come in on the shells and they will grow like weeds. They should be fed the same diet as the adults. Take great care to either cover your filter intake with a sponge, securing it with a rubber band, or to check your filter pad regularly for any babies sucked inside. Many times the babies will be fine and just need to be placed back into the tank.

WATER REQUIREMENTS:

Like most aquatic pets, your snail requires de-chlorinated water. You can use any readily available de-chlorinator product from most stores as long as it does not contain any medications or metal derivatives. We use Wardley De-chlorinator.

FOR HEALTHY SHELL DEVELOPMENT:

Your tank pH level must be around 8.0. You can purchase pH testing kits at your local fish store or Wal-Mart. To improve your pH level, you can utilize one of various remedies. Add cuttlebone (from the bird section) but be sure to remove the metal clip before adding it to the water. Partially bury the cuttlebone in the gravel so it doesn't float. Some people use crushed coral to replace the gravel. You could also try adding seashells to the tank. Just be sure none of the snails can lodge themselves inside any of them. To prevent this without fail, use "clam" type shells or shells much smaller than the snails themselves. I've also heard of people using reptile calcium supplements but have not used them myself.

DIET:

Bridgesii have voracious appetites and will consume discarded fish food and fresh veggies with gusto. They are the least likely of all the Apple Snail species to ravage planted tanks. Another big benefit to aquarists.

It will be necessary to provide food for your snails, in addition to what they scavenge from your fish. Adequate foods include: Algae Wafers, Tropical Tablets, sinking shrimp pellets and any other types of sinking food for scavengers like catfish & loaches. They also enjoy rinsed canned green beans, washed fresh romaine lettuce & washed fresh spinach (also a good calcium source).

*helpful hint: Purchase a lettuce clip from your fish store. They are very handy for feeding veggies. They are constructed of plastic and made to hold the vegetables securely. On the back of the clip is a suction cup used to hold it onto the side of your tank.

APPROPRIATE TANK SIZE & ROOMMATES:

The general rule of thumb for tank size is 2.5 gallons per snail. This, of course, depends on the adequacy of filtration & aeration. Your tank must also be totally covered. If your hood has holes, like many do, where the filter & heater hang – simply use aluminum foil shaped to securely fit the holes and poke some ventilation holes in it with a skewer. Similarly, other people have told me they use duct tape to cover the holes. **Bridgesii (and other Apple Snails) can and do leave the water.**

Good fish roommates for snails include, but are not limited to, Danios, Guppies, White Cloud Mountain Minnows, Neon Tetras, Cory Catfish, etc. All of these are non-aggressive fish that cohabit easily with snails. Some definite fish to avoid (in most cases) are: Oscars, most Goldfish, Cichlids, Angelfish, Puffers, Loaches, Barbs (most species) and some Bettas.

Additional Questions?

I encourage you to visit www.applesnail.net to learn more about Bridgesii and other types of Apple Snails. It is your “one-stop-shop” for information and is invaluable to snail-keepers worldwide. This is not my website. But you will find it an invaluable resource in your snail keeping venture.

Yellow-Banded Shrimp

By Veneer

I recently obtained three Indian "Yellow-Banded Shrimp" ("*Macrobrachium duarii*"); they are presently housed in a partially-filled 37.8-liter (10-gallon) tank – a utilitarian, if unaesthetic, setup:

Aquascaping: The substrate is comprised of thoroughly-washed "sterilized play sand" (as is marketed for children's sandpits), ranging from five to seven centimeters in depth. Loose clumps of Java moss (*Vesicularia dubyana*) lie strewn about the tank floor; along the back pane of the right-hand chamber is a single "mini-sword" (presumably *Lilaeopsis novae-zelandiae*); *Salvinia natans*, duckweed (*Lemna minor*), and a straggly sprig of true *Elodea* sp. float at the surface. [The plastic décor I have leaned against the panes will likely be replaced with thin pieces of slate.]

Hardware: Soft lighting is realized via hood-mounted fluorescent strip light (25 watts); the submersible heater, set to 78° F (~26° C), is a 50-watt Marineland model; a simple air-pump-operated sponge filter services the tank.

Fauna:

Left Chamber – Two (likely male) "*M. duarii*" and three brown ramshorn snails (*Planorbis* sp.) of assorted sizes.

Dominant male:



Subordinate male:



Right Chamber – One ovigerous female "*M. duarii*" (I have observed several eggs, not visible in the images, amongst its pleopods) and two ramshorns.

Female:





As "*M. duarii*" adheres to the higher-order method of crustacean reproduction, the resultant young will (as with most *Caridina* spp., e.g. red cherry shrimp) be fully-formed miniatures of the adults.

Compare the above specimens with...

...a juvenile crayfish (likely *Procambarus* sp.):



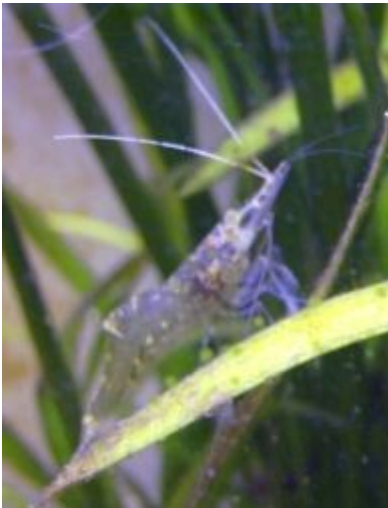
...and another *Macrobrachium* sp.:



Behavior: I have found *M. duarii* to be somewhat timid, pacing agitatedly and attempting to burrow beneath aquarium fixtures in the absence of adequate cover (though the stress of shipping likely accounts for much of this behavior). While all three largely ignored freeze-dried krill, the subordinate male and the female respectively nibbled cichlid pellets and soaked "aquatic turtle sticks"; the dominant male has so far consumed feeder guppies (*Poecilia reticulata*) and bottom-feeder tablets.

Images and text © Veneer

Ghost Shrimp In The Aquarium



Ghost Shrimp © Clint Norwood

Ghost Shrimp are commonly available in most petshops now. They are a fresh water shrimp that feed on algae, dead plants and just about anything else. They make excellent scavengers, and are completely unaggressive, even with fry as small as one day old livebearers. Some fish however will try to eat the shrimp, or pick at them. But surprisingly a lot of the smaller types of fish will co-exist with them very well.

The shrimp are quite vulnerable during their molting. That's when they cast off their hard shell covering that has become too small and emerge with a shiny new set of armor, and a little bit bigger. The new shell takes a few hours, up to a day, to harden, so you'll need to supply some hiding places for the shrimp to use during this stage. From time to time you might see the old empty shells lying around. Don't be alarmed, now you know it's just an old shell and your shrimp is growing.

Ghost Shrimp will eat any kind of fish food, they especially like left-overs. As long as the water is clean they will just about take care of their selves and if you're lucky they might lay some eggs for you. Shrimp that are carrying eggs are easy to spot, the eggs are green and you can see them thru the transparent body. The babies are very tiny and extremely hard to raise artificially. You'll have better luck raising them outside during the Summer in an old barrel or kiddie pool.

Ghosts will need a tank cover because they will jump out if they get a chance, as will many fish, so it's always a good idea to use a cover.



This is an example of the typical habitat for Ghost Shrimp in the wild.

Pomacea Canaliculata - Apple Snail or Golden Apple Snail

BASIC CARE SHEET

By: Stephanie Dodson

Congratulations! You are now the proud owner of a lovely Pomacea Marisa Apple Snail. This sheet contains the basics you should know in order to keep your new pet healthy and happy.

SOME FACTS:

Cana's generally mature at approximately fist-size in diameter and are characterized by a breathing siphon, 2 sets of tentacles (1 located by the mouth and one near the eyes) and an operculum (trapdoor).



© Danelle

They are some of the largest of all Apple Snail species you will likely find in the pet store or fish store. Though I am sure they exist, all the Cana's I have seen have ranged in brown to gold in color with or without stripes.

Unlike most other snails, Apple Snails are NOT asexual. You must have a male and a female to reproduce them. If water conditions are optimal and food supply is adequate, they may mate and lay reddish-orange colored egg cases above the waterline, typically on the side of the tank or occasionally on the tank lid. If you do not want to raise baby snails, simply remove the egg cases and discard them. If you want to try hatching them you can leave them where they were placed and the eggs will hatch within a few weeks. Sometimes the egg cases slide off and enter the water. If you see this happen, remove the egg case from the water immediately. The babies can drown at this stage. You can fashion a hatchery tank out of a plastic container with water in the bottom and a

homemade rack constructed from plastic canvas available at the craft section of most any discount store. The most important things to remember are that the egg cases must remain out of the water, warm & fairly humid. That means keep the hatchery tank covered & in a warm spot. Babies are very small and translucent when they've hatched. They can be difficult to see. They will usually remain in the gravel, scavenging food, until their shells begin the hardening process. After a week or so, you will see them gradually appearing from the gravel. In time you will see the coloration come in on the shells and they will grow like weeds. They should be fed the same diet as the adults. Take great care to either cover your filter intake with a sponge, securing it with a rubber band, or to check your filter pad regularly for any babies sucked inside. Many times the babies will be fine and just need to be placed back into the tank.

WATER REQUIREMENTS:

Like most aquatic pets, your snail requires de-chlorinated water. You can use any readily available de-chlorinator product from most stores as long as it does not contain any medications or metal derivatives. We use Wardley De-chlorinator.

FOR HEALTHY SHELL DEVELOPMENT:



© Mushi

Your tank pH level must be around 8.0. You can purchase pH testing kits at your local fish store or Wal-Mart. To improve your pH level, you can utilize one of various remedies. Add cuttlebone (from the bird section) but be sure to remove the metal clip before adding it to the water. Partially bury the cuttlebone in the gravel so it doesn't float. Some people use crushed coral to replace the gravel. You could also try adding seashells to the tank. Just be sure none of the snails can lodge themselves inside any of them. To prevent this without fail, use "clam" type shells or shells much smaller than the snails themselves. I've also heard of people using reptile calcium supplements but have not used them myself.

DIET:

Canaliculata have voracious appetites and will consume discarded fish food and fresh veggies with gusto. They do have quite an appetite for live plants, so it isn't recommended that you keep them in a planted tank, if you intend to keep the tank in its planted state.

It will be necessary to provide food for your snails, in addition to what they scavenge from your fish. Adequate foods include: Algae Wafers, Tropical Tablets, sinking shrimp pellets and any other types of sinking food for scavengers like catfish & loaches. They also enjoy rinsed canned green beans, washed fresh romaine lettuce & washed fresh spinach (also a good calcium source). I have found that my Cana's have a real taste for the stems of cilantro! They will also take shrimp pellets from my hand.

*helpful hint: Purchase a lettuce clip from your fish store. They are very handy for feeding veggies. They are constructed of plastic and made to hold the vegetables securely. On the back of the clip is a suction cup used to hold it onto the side of your tank.

APPROPRIATE TANK SIZE & ROOMMATES:

The general rule of thumb for tank size is 2.5 gallons per snail. However, Cana's get quite large. I would recommend at least 4 gallons per snail in this instance. This, of course, depends on the adequacy of filtration & aeration. Your tank must also be totally covered. If your hood has holes, like many do, where the filter & heater hang – simply use aluminum foil shaped to securely fit the holes and poke some ventilation holes in it with a skewer. Similarly, other people have told me they use duct tape to cover the holes. **Canaliculata (and other Apple Snails) can and do leave the water.**

Good fish roommates for snails include, but are not limited to, Danios, Guppies, White Cloud Mountain Minnows, Neon Tetras, Cory Catfish, etc. All of these are non-aggressive fish that cohabit easily with snails. Some definite fish to avoid (in most cases) are: Oscars, most Goldfish, Cichlids, Angelfish, Puffers, Loaches, Barbs (most species) and some Bettas.

Additional Questions?

I encourage you to visit www.applesnail.net to learn more about Canaliculata and other types of Apple Snails. It is your “one-stop-shop” for information and is invaluable to snail-keepers worldwide.

This is not my website. But you will find it an invaluable resource in your snail keeping venture.

Hatching Apple Snail Eggs

By: Stephanie Dodson

If you keep *Pomacea bridgesii* or *Pomacea canaliculata* Apple Snails you may find yourself in the predicament of discovering a lovely grape-like egg cluster deposited on the side of your tank or maybe even up on the cover of your aquarium. Do not panic! Read these simple instructions and you will be well on your way to raising up your own baby Apple Snails. These instructions are NOT intended for rearing *Marisa Cornurieta* (Giant Colombian Ramshorn) snails as they lay aquatic eggs.

Hatching them out naturally

Most of these types of Apple Snails will lay their eggs along the top edge of the glass on the aquarium wall, that is, if you leave at least 2" of glass between the waterline and the rim. Usually the eggs will be fine there, unless there is an overabundance of condensation that prevents the clutch from adhering properly to the glass and rim.

My clutches that are laid nearest the heater seem to have better luck hatching out without any problems. I believe this is due to the slightly drier environment and proximity to the heat source. Clutches generally take between 2-4 weeks to hatch. Make a note in your calendar when the clutch was laid. Mark the 2-week anniversary and a 5-week anniversary. Don't get too excited about them until the 2-week mark. At 2 weeks, check them and see if there is any difference in their appearance. My *Pomacea bridgesii* clutches (light pink) tend to darken up as they are nearing their hatch date. The *Pomacea canaliculata* clutches (reddish-orange) look whiter and more dry the closer to hatching they get. Check weekly for differences. If they have not hatched by 5 weeks, gently slide the clutch on the glass until it slides freely and can be lifted off the glass. Break it in half slowly and peer inside. If there is only gel-like goo and it smells kind of bad, toss it. It's infertile. If you see some tiny brownish babies or if the clutch crumbles in your hand when you try to slide it off, it is ready to hatch and they just needed some help. Take the pieces of egg clutch and swish them in the tank water you wish to rear them in. They will float to the bottom and begin seeking food.

Apple Snails can store sperm for months at a time and will wait until conditions are optimal before laying eggs. Don't be surprised if you purchase one Apple Snail and find that it has laid eggs 3 months later. They may be infertile or they may have been previously fertilized before you bought her. If she decides to lay eggs, consider yourself lucky. She apparently thinks you have provided a lovely home for her. It's a compliment!

Hatching them in a homemade "incubator"

This is where it can get tricky. Either you've had the eggs laid in your own tank and they fell off, you needed to move them or you purchased the eggs someone else had. In any case, you need to build an "incubator" quick.

Building an incubator can be done in many ways. It's pretty easy and requires no special knowledge or tools.

The Net Breeder Method

(Read all instructions before purchasing any of the components)

This is very much like the Critter Keeper method, except you are utilizing the warmth of your tank and the same water. To me this method is somewhat easier to deal with. But it all depends on your tank situation.

I install this so that the net breeder hangers (metal clips) are positioned on the short side of my tank. The contraption is just underneath the lid of the tank so I can easily check on them with minimal disturbance to the clutches.

(1) Net Breeder made for fish. You can purchase these also at WalMart or any fish supply store. They run about \$6.00 each.

(1) Sheet of Plastic Canvas from the craft section of WalMart or any craft store.

*Requires that you have a light hood on your aquarium.

Place the net breeder in your tank after putting it together. You don't have to install the plastic plants that are sometimes provided. They are not needed for this application. Adjust the metal hooks so that when you put a sheet of plastic canvas over the top, there will still be room to place egg clutches without hitting the lid of the tank. Make sure to adjust it so that your aquarium hood still fits reasonably well over the metal hooks that hold the net breeder up also. There should be at least a couple inches of water at the bottom of the net breeder. Now, cut a sheet of the plastic canvas to fit on top of at least ½ of the net breeder. The plastic canvas will be supported on 3 sides by the top of the net breeder. Scoot at least one edge of the plastic canvas underneath the edge of your aquarium hood. This will help ensure it doesn't fall.

Add your egg clutch(es) to the top of the plastic canvas. Shut the lid to your aquarium. If you've adjusted it all correctly, there should be no problems shutting the lid. If there is a problem, take the clutches off and readjust it.

I use this method because I don't have to worry about the cats knocking the Critter Keeper down and I am going to put the babies in that same tank anyway. I just want to control where they hatch, so I can inspect them and not worry about the clutch falling in while I'm away from home.

The Plastic Canvas in the Critter Keeper Method

(Read all instructions before purchasing any of the components)

(1) *medium sized Critter Keeper, a plastic box that you can purchase at your local WalMart or PetSmart which comes with a lid and usually a handle on the smaller ones. *Size you buy is dependent upon if you intend to house the babies in there for any length of time or if it is merely to get them hatched out and moved to a regular tank just after hatching. Cost: \$7.00 or more on average, depending on size.

(2) sheet of plastic canvas found in the craft section of your local WalMart or other craft store. Buy whichever size will meet the needs of your Critter Keeper.

Take the sheet of plastic canvas and put it inside your Critter Keeper. It needs to be cut to fit in order to make a "U" shape, held in place by tension against the sides of the Critter Keeper. Pretty simple design, really. You want the bottom of the "U" to NOT touch the water you will put in the bottom.

If you just intend to hatch the babies out in the Critter Keeper and not house them for more than a week or 2 at best, just add about an inch of water or whatever will cover an airstone without it making a huge amount of noise.

If you are housing the babies in there until they are large enough to place in a tank with other fish, etc. in it, perhaps you will add a few inches of water. Either way, you need some water in the bottom of it for the babies to hatch and fall or crawl into.

Once you have put it together, put the water in the bottom, add your plastic canvas "U" and add your egg clutch on top of the "U". Cover the Critter Keeper and either keep it in a warm place, or put a heating pad on the lowest setting underneath 1/3 or so of the Critter Keeper. Ideally, you can place it on top of your existing aquarium and the radiant heat from the light and tank will heat it for you, unless you have cats like I do, which will promptly knock the whole contraption over and drink the water contained inside!

After the babies hatch, add the air hose with airstone attached to an pump. The babies will relish the added air and will sometimes ride the bubbles.

Rearing the Babies

Now that you've hatched those darling baby Apple Snails out, you must care for them. They are easy to care for so there's nothing to it.

Food: They relish algae wafers/pellets, shrimp pellets and depending on species, enjoy some fresh veggies like Romaine lettuce, Spinach and Cilantro. *P. bridgesii* seem to be the least fond of the veggies though. So they're fine with the commercial foods mentioned. Break the wafers or pellets into smaller pieces and sprinkle them throughout the tank so the little guys don't have to roam far to eat.

Care: Snails in general produce a lot of waste. Give regular water changes and test for ammonia levels and pH. They need a pH level of 7 or over. The higher the better. Of course ammonia levels should be -0-.

That's about it, in a nutshell. Pretty easy stuff. Read the snail care guides for the species you keep. And don't forget to visit your one-stop-snail-site <http://www.applesnail.net> for information on these wonderful pets. Good luck!

© Stephanie Dodson

Aquatic Snails

By: Susan Mast



[Enlarge in a new window](#)

Marisa Cornuarietis © Susan Mast



[Enlarge in a new window](#)

Pomacea Canaliculata © Susan Mast



[Enlarge in a new window](#)

Gold Applesnail, © Susan Mast

Latin names for some the more common snails: Pomacea Bridgesii, Pomacea Canaliculata, Marisa Cornuarietis, Vivaparidae (to name a few)

Origin: Various locations world-wide (most Apple Snails are tropical)

Temperature: Variable, but for the tropical variant 18 to 28°C (65 to 82°F)

Agressivness: Most are very harmless, although the P.Canaliculata has been known to be semi-aggressive with slower moving species of aquatic animals esp. when food availability is low.

Size: Variable; the smaller Viv's remain quite small (some adults may be as small as 2 to 4 cm), while P.Bridgesii sp. Apple's may top out at about golf ball size and adult P.Canaliculata may top out at soft-ball size.

Tank Size: In the case of aquatic snails, tank size isn't quite as important as filtration capabilities. I've kept snails in 10 gallon tanks, but the filter used on the tank needed to be twice the recommended size to accomodate the amount of waste that snails produce. I keep about 3 dozen adults in a 55 gallon tank, but I run two HOB filters that are "turning the water volume over" approx. 15 times per hour. (Snails produce a LOT of waste)

Food: Vivaparidae sp. do well in a planted tank as they mostly feed on soft algae. P.Bridgesii have been known to starve to death in densely planted tanks when food was not provided (they lose their appetite for algae as they grow into adulthood). They should be provided calcium rich aquatic animal foods for optimum development of the shells (as should any aquatic snail).

P.Canaliculata and Marisa C. species have voracious appetites for just about any type of vegetation (vegetables and/or aquatic plants are definitely on the menu), but should also be provided calcium rich prepared aquatic animal foods.

The short list of foods that I try to make available to snails is: aquatic turtle pellets, crab & lobster granules, shrimp pellets, earthworm flake food, spirulina pellets and/or flakes, variety wafers, algae wafers (for those snails that appreciate them) and foods prepared for omnivores that contain calcium high on the ingredients list (because they are listed in order of predominance).

I also supplement calcium in my tank in the form of processed chicken egg shells (see comments for processing instructions), liquid calcium (I have a definite brand preference) and iodine

supplements. I use the shells of approximately 12 eggs weekly in my 55 gallon tank. I use 1/4 tsp. of liquid calcium daily and 5 drops of iodine twice a week. *Note: Remember I'm treating 55 gallons of water containing approx. 3 doz. adult snails.

Spawning: Viv's give live birth to babies. Eggs are deposited inside the opening of the shell and hatch (usually a few at a time) fully aquatic. *Marisa C.* lay aquatic eggs that are clear until the embryo begin to develop (at which time they begin to darken). *P. Bridgesii* & *P. Canaliculata* lay aerial calcareous egg clutches (above the water line). *P. Bridgesii* clutches contain between 50 to 200 egg cells and are pinkish beige (almost skin color). *P. Canaliculata* clutches contain between 50 to 200 egg cells and are bright pink/orange in color (almost fluorescent...very bright in contrast to *P. Bridgesii* eggs).

Processing Egg Shells for Calcium:

Wash shells in hot water. Collect an amount that will be "worth" processing (I use an old metal bread pan to collect the shells in). Bake in the oven at 350°F for about 15 mins. Remove and let cool. Place in a coffee grinder or in a ziploc baggie. If using ziploc baggie method, I use a wooden rolling pin to roll and roll over them until they are crushed to about the same particle size as large particle (blasting) sand. Turn off your filter and pour the shells into the water allowing them to settle into the substrate before turning the filter back on (this is esp. important if you use the type of filter with magnetic impeller assembly as the shells will get in the assembly and "score" (damage) your assembly).

Blue Crayfish



Blue Crayfish © Chan Pei Lynn
By: Tom Palmer

Common Name: Blue Crayfish (often mislabeled as Blue Lobster)

Latin Name: *Procambarus alleni*

Origin: United States

Temperature: 72-76°F

Ease Of Keeping: Easy, but...

Aggressivness: Semi-aggressive

Adult Size: 6 to 7 inches (19cm)

Minimum Tank Size: 20gal

Feeding: just about anything they can get their claws on

Spawning Method: egglayer, female carries eggs under her carapace

Comments: The Blue Crayfish is a wonderful addition to any tank, so long as one keeps an eye on it. The only requirements for them in a tank is a cave to hide in during the day, and plenty of plants to climb and hide in. Proper aeration is necessary, as is filtration. They have a reputation for being vicious killers, but as far as I've found, the trick is to just watch what you put in there with them. They are very hardy creatures, and they can survive in almost any element. I will lay out some specifics here, to help you keep your crayfish happy and healthy.

Feeding

When it comes to feeding, I'd say your best bet when your crayfish is young would be to start off with some shrimp pellets, but be sure to compliment them with some algae pellets or a slice of zucchini to get some roughage for them, and because it will distract them from devouring any live plants you have in your tank (I learned THAT the hard way). All crustaceans are essentially bottom feeders, so they will really eat just about anything. Crayfish do have a fairly voracious appetite, but make sure you don't overfeed (see MOLTING, below).

Territory

Territory is VERY important to Crayfish. You really only want to put one in your tank. If your tank is over 50 Gal, you can probably get away with two, so long as they had very definite territories, each with their own cave to hide in, as spaced out as possible. But keep an eye on them, and don't be surprised if one is clawless after a while; when they fight, they don't always kill, they usually fight for dominance by ripping their opponent's claws off. On the upside, single crayfish really don't need much in the way of space, so long as they're fed. Just enough so they can roam around a big, and a plant to climb on. I'd recommend putting like two or three feeder fish in with it, such as rosie reds, just in case the Crayfish needs some fresh meat.

Community

Which brings me to my other topic. As far as getting along with other fish, well....I've been told Crayfish will eat everything in your tank that they can get their hands on. This isn't exactly true, but it's close. I keep mine fairly well fed (I stash a pellet in his cave every other day, and he's happy), and he only kills other fish if they try to eat his food. As mentioned above, crayfish are bottom feeders, so make sure anything you put in is a middle- or top-feeder. But crayfish also love to climb plants, so middle feeders aren't completely immune. Plecos are safe around crays because they have armored plating along their back, so tough-scaled fish work well. The other thing to look out for is speed. I have a baby bala shark in my tank (inch and a half...he's so cute), and he darts around the cray WAY faster than he can catch him. Same with my black skirt tetras.

Mating And Sexing

If you choose to mate your crayfish, you need patience. To tell the difference between male and female, simply pick them up. To do this safely, catch them in your net, and then place your thumb and index finger on either side of the body right behind the claws, and pinch GENTLY. This will not hurt the crayfish (they're very well armored), and will prevent you from getting nipped. And don't worry, like most crustaceans, Crayfish can stay out of water for short periods of time as long as they remain damp.

Now, hold them upside down and look underneath their tail. Right behind their last pair of legs, males of the species will have two tiny appendages that look like miniature legs. If these are not present, then you have a female.

Molting

One thing to look out for is their molting cycle. Molting is natural and healthy for them; it means they're growing. However, if you overfeed your crayfish, and the water is TOO warm (78 to 80 degrees or so), they will molt faster, and that will shorten their lifespan. In nature, crayfish come from lakes and rivers, which tend to be cold a lot of the time.

Final Notes

If raised right, your Crayfish will most likely wind up being your favorite tank denizen. I know mine is my favorite. Though, admittedly he's a bit of a bastard to the other fish. He delights in chasing them away and claiming multiple areas of the territory as "his". In fact, before typing this, I had tossed two algae tablets on either side of the tank...one into his cave just for him, and one on the far side of the tank for the other fish. While writing this, I watched him devour most of his tablet, then race to the other side, scare the fish away, and drag their tablet away to his cave for later dining. He's funny like that.

No matter what you do, I hope you truly enjoy your Blue Crayfish. Good luck!

Comments

Name: Sarah

Comments: First of all I would like to say great job on this webpage, very well organized. I got my blue crayfish about a month ago and he is so cute. But I will admit he can be a pain sometimes, when I brought home my angelfish and my 3 kissing gouramis within a week they had all disappeared I finally figured it out when I caught him eating 1 of my kissing gouramis. Other than that he's one of my favorite aquarium residents that I have ever had. So I guess it just matters what you mix with them.

But he is so funny... this morning I found him hanging from one of my floating plants to get the floating pellet.

I think these little guys make great pets.

Name: Nikki

Comments: It's a very nice webpage. I also agree that blue crayfish are very cute. However, ours has killed well over 10 fish. Mostly gouramis, so we switched him to a new tank with cichlids. However, he killed three in a matter of a day. I recommend getting a crayfish and putting him in his own tank because ours did not mix well with any other fish except sharks. They're a great addition... but don't be surprised if your population in your tank decreases.

Amano Shrimp

By Janna Kate



Amano Shrimp © Wendfish

The freshwater shrimp *Caridina japonica* goes by many names. It is known as the Amano shrimp, Japanese marsh shrimp, grass shrimp, Yamato Nuna Ebi, Yamato shrimp, algae-eating shrimp, and the Japanese swamp shrimp.

Its native home is the marshes and swamps of Japan, and it does feed on algae and soft aquatic plants. It is often known as the Amano shrimp because the famous aquarium photographer, Takashi Amano, used the beautiful creatures in his work so often. If you look at his books, you'll most likely see some of these shrimp.

They are quite lovely creatures. They have transparent bodies with lines of dots on each side, and a fan-like tail. A stripe runs down their back. Their feelers are long. They reach a length of about 1.5-2 inches. In my opinion, they are much prettier than the more common ghost shrimp. They also reportedly live longer than other freshwater shrimp species.

Although many prefer fish food to actual algae (they are no substitute for tank cleaning), they make great scavengers. They are quick, graceful swimmers--a delight to watch! I find mine is sometimes faster than my goldfish in recognizing and grabbing food. They are great at finding leftover food. Because they are clear, it is easy to tell if they have been eating or not.

At this time, Amano shrimp are difficult to find in the United States, although they are very popular in the Asian aquarium trade. When they are available, they are much more expensive than ghost shrimp. Currently, a single Amano shrimp will cost between \$2-\$3, while ghost shrimp cost mere cents. One problem is the difficulty in breeding them. Although breeding in captivity can be done, the larvae require salinity to grow, although adults are very tolerant of varying water conditions. Females can be identified when they are carrying eggs.

When transporting the shrimp, be careful! They are delicate, but, if they are able to get leverage on something, like a net, out of water, they can jump. They like having something to hold on to, so give them a piece of a plant if their traveling container has slick surfaces.

What To Feed My Apple Snail

what to feed my apple snail

Post by: **blackmoorgirl** on **January 17, 2006, 10:49:30 AM**

??? hi was wondering what i should feed my apple snail. He seems to like to eat the food that my other fish do not want off the bottom. I was just wondering if he needs somethign special? Thanks!

Title: Re:what to feed my apple snail

Post by: **Zero** on **January 17, 2006, 10:59:59 AM**

he's scavenge the bottom, eat shrimp pellets if you have any. he may be interested in veggies, aswell. Maybe blanch him some lettuce?

Title: Re:what to feed my apple snail

Post by: **dementedlullaby** on **January 17, 2006, 12:45:55 PM**

blanching really kills all the good stuff in veggies. I wouldn't eat blanched food either haha :).

Basically whatcha wanna feed him is slightly microwaved veggies. I'm talking 10 seconds here. I feed my little guys veggies every 2 days and the occasional piece of a banana I don't want anymore LOL.

here's some good ideas :

carrots are great, but will make them poop orange. It's kind of funny, but a bit unsightly lol.

Green beans. My snails love 'em.

Colards. MMmmm good

Peas. They go crazy over 'em. but so do my fish lol

shrimp pellets will do well as zero suggested, but won't take the place of veggies. I let 'em have a shrimp pellet as a treat. I don't remember if there's only one kind of good lettuce or one kind of bad lettuce. I know it's something like that lol. So stay away from lettuce until you find out. Basically it doesn't have enough vitamins and stuff in it.

Spinach is supposed to be bad, as is brocolli since it may inhibit their ability to intake calcium which is needed to grow a healthy shell.

There's lots of info at www.applesnail.net and a great forum riddled with lots of good stuff. I'm a

member so stop by and say hi if you check it out ^^

Title: **Re:what to feed my apple snail**

Post by: **blackmoorgirl** on **January 17, 2006, 01:50:15 PM**

Hey thanks for the information! I'll go to the apple snail site tonight! :)

Title: **Re:what to feed my apple snail**

Post by: **TatooedLady** on **January 30, 2006, 06:20:45 PM**

the 'bad' lettuce is the basic green leafed "iceberg" lettuce. It's low in everything but water content.

Title: **Re:what to feed my apple snail**

Post by: **Maekellen** on **February 01, 2006, 02:51:27 PM**

Kale and Romaine Lettuce are both excellent greens. They have high calcium contents to help the shell building. Spinach is good, but has a binding agent in it (I think it's the phosphorous, but not certain) that binds with the calcium and prevents it from being digested, so should only be feed sparingly.

Snail Jello

Title: **snail jello**

Post by: **Zero** on **March 19, 2006, 10:23:23 AM**

Yeah... my snail jello isn't mixing. I heated a jar of baby food to boiling and added the gellatin mix and the gellatin just clumbs together and makes really stick lumps in the baby food.

Title: **Re: snail jello**

Post by: **dorn27** on **March 19, 2006, 08:37:43 PM**

Well, if you've got lumps you either did not use enough gelatin, or you did not mix well. It ends up looking more like rubber than actual jello... because of the baby food.

Title: **Re: snail jello**

Post by: **Zero** on **March 19, 2006, 09:01:31 PM**

I got it to work right earlier, lol :)

Title: **Re: snail jello**

Post by: **BettaBelle** on **March 20, 2006, 07:36:42 PM**

I mix it slowly, rather than dumping it all in, I sprinkle it, mix it, spinkle, mix, sprinke... welll.... Eventually I get it all in.

Title: **Re: snail jello**

Post by: **Echo88** on **March 22, 2006, 04:02:39 PM**

How do you make snail jello?

Title: **Re: snail jello**

Post by: **dorn27** on **March 22, 2006, 09:10:07 PM**

1 jar baby food (higher in calcium the better)
1 packet of unflavored, no sugar added gelatin
Calcium powder
Fish food

Super heat the baby food in microwave, about 1 minutes, in a bowl. Add calcium, fish food, ect, stir. Stir in gelatin. Spoon mixture into a rubbermaid container, deep plate, or mold (something flat and about 1 inch deep will work). Set (about 10-20 minutes). Cut into pieces, freeze in single layer. AFTER frozen, load into plastic bag for storage. Can also be dehydrated (I've been told).

Title: **Re: snail jello**

Post by: **BettaBelle** on **March 23, 2006, 04:11:51 AM**

Well that's what it does in my fridge, it dehydrates... I cut it up before I put it in the fridge, small bits, and after it dried out, I mix it around. One bit pre two snails is about the right amount.

I may have said, but I did an informal experiment, and threw 10 in about 2 cups of water, and it took 3-4 days before the water clouded, and the container was sat in the sun to hasten the effect, so I'm thinking it is very tank safe.

I feed early evening, and leave it in there until late morning, and whatever they don't eat, I syphon out.

T H E E N D

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