

ALL YOU NEED TO KNOW ABOUT PET SNAILS



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All you need to know about Pet Snails

According to the international statistics, more than a half of people have at least one pet living with them. You won't be surprised to see a dog at your friend's house. But how about a land snail crawling on his hand?

Actually, snails and slugs are becoming more and more popular nowadays. You'll be astonished to know that they are great and really cool looking pets, easy to care for and cute in their own right.

If you are wondering how to keep a pet snail at home, whether they are safe for human or just want to know more about these amazing creatures - this guide is certainly for you!



A Brief Introduction

Slugs

Slugs and snails both belong to the same category with a slight difference. Slugs don't have an outer shell. They have small soft bodies with moist skin. Slugs are invertebrates. It means they don't have backbones. There are various kinds of slugs with different shapes and habits but most of them prefer to live in moist soil. One of the largest slug species in the world is named "banana slug" and is mostly found in North America. Despite the size of up to 25 centimeters (9.8 inches) they are not predators, they eat detritus (dead organic matter), including fallen leaves and plants. However, some slugs are predators and eat other slugs and snails, or

earthworms. They eat with a jaw and a flexible band of thousands of microscopic teeth, called a radula. Slugs move by the power of muscular contraction, it looks like a wave and goes from the back to the front. There are special glands at the front of their foot that produce slime which helps them to move forward. That is why we see a silver trail left behind a slug. When you look closely at his head, you can find two pairs of 'feelers' or tentacles. The upper, optic tentacles, have light-sensitive eyespots on the ends. Each eye-stalk can move independently and can be re-grown if lost. They are used for vision, touch and smell senses.

As for breathing - slugs have a lung inside the mantle cavity, with a breathing pore to the outside. This pore is usually on the right side of the body, and if you watch, a slug for long enough, you will see it open and close. Slugs get about 1/2 their oxygen this way. They get the rest by absorbing oxygen via their moist skin. One more interesting fact about these animals is that they are all hermaphrodites and can fertilize themselves. It's because they appear to be food for all sorts of mammals and birds.

Snails

Snails, on the other hand, have a different body structure. They have moist bodies that are covered with coiled shells. Their other body parts include feelers, eyes, mouth, and teeth. Talking about snails' habitat, they can be found in the rivers, forests, sometimes in your garden and even in the deserts. Land snails range greatly in size. While some of them are only a few inches long, there are land snails that reach almost 12 inches, like the Giant African Land Snail, a species endemic to Africa. Most terrestrial snails are herbivorous, but others are omnivorous and some even carnivorous. Some snail

species enjoy plants that are already dead, as well as animals or any dead organic matter. Most species of land snail are annual, others are known to live 2 or 3 years, but some of the larger species may live over 10 years in the wild.

Snails can be divided into three groups according to the place they inhabit. Snails live on land, in fresh water and in salt water.

Land snails

Land snails can be found in any dump or shady place. These snails mostly live on the surface except for the forest snails. Forest snails can be found on the trees as well. They are usually pretty big and colorful. All land snails have lungs that inhale oxygen. They move with the help of muscular contractions and have glands on their body. These glands secrete mucus that helps snail to move, in case of dry weather, is sealed in their coiled shell, and helps them to keep their bodies moist. Most snails lock themselves up in the shell until they find some moist or shady place. The period when snail stays inside the shell is called "resting period."

Freshwater Snails

Freshwater snails are mostly found in rivers, ponds, lakes, and hot springs. Some of them have lungs and must surface to breathe the oxygen. Others have gills and absorb the oxygen from the water.

Saltwater Snails

Saltwater snails are the largest group of snails in the world. They live in the salty waters like seawater, oceans, and sometimes at the seashore. These snails eat sea plants, and some even consume dead fish. Saltwater snails are important food for fish,

birds, lobsters and crayfish. This category of snails is very beautiful with charming colorful shells. Different individuals collect their shells, and they are used for different purposes like decorations and in jewelry crafting.

Saltwater snails usually live inside their coil shape shells and have gills to get the oxygen under the water.

Freshwater and land snails are very popular as pets nowadays. So, let's take a closer look on them.



How To Keep A Pet Snail

People usually keep snails as pets for their kids. Elementary school kids may learn a lot from snail activities. For example, observe their movements, get to know what they eat, their habits and a lot of other things. Kids are very observing by nature. They have the power to notice small details, that's why they can learn a lot even from a snail. If you are keeping a snail as a pet, there are many do's and don'ts. Snails are small and sensitive creatures, so you need to be very careful while keeping them in your home.

You can find a brief guide on "how to keep pet snails at home" below.

Snail House

The first and the most important thing for keeping a snail is a comfortable house. It depends on the kind of snail you are willing to get. Land snails need a moist and shady place to live in. So it is recommended to build a hiding place underneath a tree or a plant in your garden. Many individuals confuse snails with insects and assume that keeping a snail on the sun is good for them. Please mind that keeping a snail on the sun or other dry place might result in severe dehydration or even death. The same goes for freshwater snails, they don't like too many sunlight and keep themselves in the freshwater. To keep freshwater snails as pets, it is recommended to build an aquarium with freshwater and try to give them a natural house (adding some plants to the aquarium, etc.)

So the first and the most important thing for keeping snails as pets is a "safe and sound" house. That's why you should make snail's house as natural as possible. Add some extra plants and flowers to the tank where your pet lives. Add plants that survive in the moist shady places, they will be the best choice for the tanks or pots for snails.

In addition, it is important to leave some gaps that will work as windows, in order to provide aeration and a certain level of humidity. The more airflow you create - the less humidity you get. So depending on the species of snails you are keeping, it is suggested to arrange the needed level of humidity.

Snails are typically crepuscular or nighttime creatures, and they will frequently spend daytime stowing away in their shells. So you need to give them a "home" where they can rest easy for several hours. Even a broken house vase or a top of the lamp can be a suitable place for them to hide. Some of them will anyway favor tucking away among rocks, while others will move as high as they

can and rest on the top of the terrarium, some will tunnel in the dirt, so you should watch your snail's behaviour to adjust the terrarium to their needs and habits. Snails are also great climbers and will acknowledge twigs and branches. In case you want to test their ability to climb, you can put their food on the top of the tank or on the vase and let them eat it. You will be surprised.

Substrate for Snails

Every snail house must have a substrate or else they wouldn't have enough humidity or even drown because of water on the bottom of the tank. They also need a substrate because they dig holes to bury their eggs. Any substrate that they can't or won't dig in is unsuitable. The substrate should be between 2-3 inches thick all over. You'll need to change all of the substrate weekly and freeze. You can also mix different substrates. Probably the best substrate is garden soil and peat moss. But most people suggest sterilizing the soil by putting it into the microwave for several minutes. This process makes soil suitable for pet snails.

Snails Shell

Taking care of the snail's shell is very important too. Feeding a pet snail or keeping it in the warm moist place doesn't mean you are done with taking care of it. You also need to add a mineral substance to the nourishment in a different feeder. It might be chalk, eggshell, or another wellspring of calcium. Just eating these minerals, the snail shell will be strong, healthy and the development of your pet will be accelerated. The calcium increases the life of the snail and its shell.

What do snails do?

Snails are not very active during the day. Typically they find a damp spot and hide in it. Snails can glue the opening of their shell to an object or a surface using mucus as the glue. This keeps it from losing too much water from evaporation. They stay under logs and stones or under ground cover. They also hide under planters and low decks. At night they come out to eat. The reason the snails and slugs like to come out at night is because it is cool, fewer predators, and less chance of drying out. In countries with cold winters some snails, especially land snails, hibernate forming a layer of dry mucus, called an epiphragm, effectively sealing off their shell. Winter is a long rest period, the prolonged fasting. Snails must deal this with a maximum of reserve because it can take rest 4 to 6 months. They will come into hibernation when the temperature falls under 12°C at 15°C. Some species are known to estivate during the summer, in times of drought. They usually stay in the leaf litter, under rocks, anywhere where it will stay cool and relatively dry. Water snails have a door-like structure called an operculum that they use to seal themselves in their shell for protection from desiccation when the habitat temporarily dries out. These processes are probably one of the reasons they have survived for millions of years.



Snails Anatomy

Snail's anatomy is really interesting. More interesting than you could ever expected. Many people find snails fascinating because of their shell colors and various shapes. But in fact, snails bodies have a lot of other hidden surprises. Don't be too fast with the conclusions, give yourself some time to learn more about snails.

External Anatomy

To examine the outer body of a snail, we will divide it into two parts:

- Strong coiled shell
- Soft body

A solid spiral-shaped structure carried on the back, made of a single piece and consisting mostly of calcium carbonate is called shell. The central layer of the shell, called ostracum, has two layers of crystals of the same substance, calcium carbonate. The Hypostracum is below, and the most superficial layer is the periostracum, composed of a lot of proteins.

The shell of a land snail differs from other snails as they are different in size, weight, shape, and structure. Some of them are cone-formed, while others are round. This structure shields the snail from nature and even from predators. Its surface can differ in tones and colors, but the most common are yellow and brown. The shell ensures the safety for the body and inside organs of the snail.

The shell stays with the snail for its life, and grows along with it. When a juvenile snail hatches from an egg, its shell has only one whorl, that is, one 360 degree rotation from the center. As the snail grows, the shell increases in size by growing around the first whorl – and around, and around, until the snail has reached its adult size. Different species of snails have different numbers of whorls.

Whenever snails feels danger, they secure themselves by hiding in their shells. Snails don't come out as long as they consider it is safe for them to come out. So the shell is a strong protection for them.

The snail moves about by means of a large, muscular structure called a foot. Waves of muscular contractions and expansions enable the snail to move forward. The snail secretes mucus from its skin, which lubricates the surface upon which it crawls. With its muscular foot and marvelous mucus, the snail can easily glide over many surfaces, including glass, on which it can move vertically and even upside-down. A snail can even move over a sharp razor blade without getting cut, thanks to the protective and slimy mucus.

Land snails breathe air, just like we humans do. Air enters the snail's lung through its pneumostome. Inside the lung, which is a region of tissue where gas exchange occurs, the oxygen is picked up by the blood, and carbon dioxide is emitted – again, just like human respiration.

Internal Anatomy

Inside, the body of the snails lack divisions. The internal organs, including gonads, intestines, heart and esophagus, create an organic mass protected by the mantle. They have a lung specialized in using the oxygen obtained from breathing the air from the atmosphere.

In contrast, they do not have a brain like that of dogs or humans. Instead, nerve cells concentrate in a set of ganglia and emit neurosecretions that trigger necessary actions like the release of hormones. The ganglia interconnect by bundles of nerve fibers that transport the signals at high speed. Although this is a rudimentary brain, they have an excellent ability for associative thinking.

The sense of sight of snails is useful but only detect changes in the intensity of light to recognize whether it is night or day; They can move their tentacles up or down to improve their ability to see. However, they are practically deaf since they have no ears nor ear canal. To compensate this absence of hearing they have an excellent associative thought which helps them remember the places where they were or where the objects of their surroundings are.

The mouth of a snail is at the bottom of its head, just below the tentacles. The radula is a structure in the mouth of the snails. Similar to an elongated sack that has several rows of tiny teeth inside it

that help to scrap the food instead of chewing; Then the food passes into the esophagus and other organs of their digestive tract. In the lower part of their soft body, they have the anus.

Most land snails are hermaphrodites because each has both male and female reproductive organs that produce both eggs and sperm. They are capable of self-fertilization, but usually, they copulate with each other.

The mantle is a protective layer that covers the foot and some internal organs. In some cases, it is also found covering the shell to offer it additional protection.

There is a unique process in the gastropod mollusks during larval development, known as torsion. The body moves from the back area to the front region, which causes a rotation so that the mantle cavity, which includes the anus, shell, and visceral mass, rotate about 180 degrees and are placed suddenly above the head and it seems that the shell is back.



Why keep snails as a pet?

One might be thinking that what is the need for keeping snails as a pet as there are hundreds of other land and water animals that can be kept as a pet, and they are easy to handle and easy to play with. You might be wrong if you are thinking that keeping a snail as a pet is of no use. Snails are great pets, just like other animals. They are friendly, and they love to play with people once they get used to them.

Here are the main reasons to keep snails as pets:

- They're quiet and calm.
- They don't take much work.
- A simple set up is not expensive, and it is enough for a long period of time.
- Children can handle snails easily. They learn to notice even small details.
- They may be slow, but they can be interesting to watch. You can find amusing activities that might be surprising for you and your kids.
- They are unique pets.
- They can eat even the leftovers from your fridge. So you won't spend additional money on nutrition.



How to feed a Snail

Snails are easy to feed, the only thing that you should be concerned about is their nourishment requirements. Snails need calcium and carbohydrates, to stay strong and active. Nutrition also depends on the species of snails you keep. The land snails eat different food in comparison to freshwater snails, so you should pay attention to the differences.

Land snails diet

Land snails prefer fresh fruits and vegetables. They will also eat cucumber, courgettes, apples, melon, grapes and bananas. So if you have a land snail as a pet, follow the steps below:

Step 1

It is better to keep the land snails on fresh veggies and fruits. However there are also other options, that you can find in the list:

- A variety of fresh fruits and berries including apples, apricots, grapes, kiwi, mango, melon, nectarine, raspberry, strawberry.
- A lot of vegetables like cucumber, mushroom, tomato, lettuce, broccoli, green beans, peas, sprouts, sweet corn, and turnip.
- You can also give some seeds like sunflower or pumpkin seeds.
- Cooked grain, including oat and rice.

Even though snails prefer to have fresh fruits and veggies, it is advised to boil them a bit. During the process of boiling fruits and vegetables become softer, and it is easier for the snail to chew them.

Step 2

Snails are sensitive to any strong chemicals or pesticides. Any food consisting chemicals might have very negative effect on snail's health. That's why it is advised to wash everything before feeding your snail. Once you are done with cleaning, chop them with a knife or a chopper, and give small pieces to the snails.

Step 3

Different species of snails need different quantity of food. Start with 0.25 ml portion and increase the quantity later on if needed. If snail consumes all of the given food, you can slightly increase the portion each time.

It is recommended to remove food leftovers after 24 hours. Eating rotten or unfresh food can negatively affect the health of the snail. Snails are not very good at digesting solid food like crackers or pasta. Also, you should avoid giving them fast food or spicy food with lots of salt or sugar.

Step 4

Mostly, you don't need to give water to your snail. Snails love to live in humid and moist places, so they can fulfill their water demands. If it gets dry outside, snail hides in the shell and get the moisture from mucus. But it is suggested to keep a bowl with filtered water for their bathing. Tap water is not recommended, chlorine or any other chemicals can harm snail's body. Instead, use a filtered or boiled water. Change the water in the bowl every 2-3 days. You can also use a water spray to keep your snail hydrated. Fill the bottle with filtered water and spray your snail and its house. If the climate is very hot or dry, it is recommended to spray water 2-3 times a day. Snails may not survive in dry climate for too long.

Step 5

Snails need a lot of calcium for their shells. Snail shell should be strong and hard enough to protect the soft body. Therefore a lot of calcium is required to keep their shells hard and strong. One of the best ways is to keep cuttlebone inside the snail habitat because it is easy to break into pieces and place them in the tank.

Or you can also use calcium sources, crush them, and add them into snail's food. Here is the list:

- Dead snails shells;
- Calcium powder;
- Powdered oyster shells;
- Natural chalk;
- Natural limestone;
- Bone meal;
- Wood ash.

Freshwater Snails diet

Freshwater snails, unlike land snails, are omnivores, they eat sea plants or algae. Here are the simple steps of feeding freshwater snails:

Step 1

As mentioned earlier, freshwater snails are omnivores, they like to eat dead fish flesh like jellyfish. Add a little amount of fish flesh and algae in the aquarium in order to feed freshwater snails. (research properly which kind of flesh is better for the snail you are keeping)

In case you can't find any dead fish flesh, you can also look out for some algae or other freshwater plants at any shop near your home. Algae are easily available on different pet stores and online stores as well. Read out the instructions on the packaging carefully and add the needed amount. Don't overfeed your snails, stick to the recommended amount.

Step 2

Other than algae and dead fish meat, freshwater snails also love to have blanched vegetables. Blanch the vegetables, boil them in hot water for 2 minutes and then soak in ice-cold water. Cut down the pieces into small little cubes, and feed your snails. Freshwater snails also like to eat shelled peas, carrots, cucumber, zucchini, and iceberg lettuce. Don't give raw fruits and vegetables to freshwater snails. Blanched veggies always work for the water species. Follow the instructions below:

- Chop the veggies into very small cubes by using a kitchen knife or chopper.
- First, add a small quantity of food and notice how quickly your snail eats it.
- Add some more food if it has finished the previous portion.
- Remove the food, if not eaten for more than 24 hours.
- Rotten food should be removed from the aquarium as soon as possible.

Step 3

Just like land snails, freshwater snails also need a lot of calcium for their shell. Freshwater snail needs calcium to make its shell even stronger and harder. Therefore, it is recommended to add additional calcium sources into their tanks. The following list consists of some of the major sources of calcium for freshwater snails.

- Cuttlebone;
- Shells from dead snails;
- Oyster shells;

- Natural limestone.

Remember, natural limestone can increase the pH level of water. That's why it's recommended to use very little quantity of it.

Step 4

Different snails have different habits in eating. Many individuals panic if their snails are not eating too much, or if they eat a lot. That's why it's advised to concern and discuss the diet plan of your snail properly. Also, it is important to note how many species you are keeping in the aquarium and if the food is properly divided between them. The best thing is to get all the instructions from the pet store while buying them or contact a vet.

- You may learn by trial and error how to feed your snail properly.
- If your snail is not eating all of the food you give, try to experiment with the lesser quantity or other food choices.
- The best tip is to give as much food to the freshwater snail as they can eat in 3 minutes. Remove the rest of the food. Your snail might already be full.
- Add some additional food sources for your snails as well. The more food choices it has, the healthier it will be.
- Sometimes snails hide in their shells for too long. No need to panic. Put their food in the tank. They will smell it and eat it whenever they are hungry.

Don't force your snail to eat; snails eat whenever they are hungry or when they need it. Forcing snails or adding food in their tank, again and again, won't make them eat. Drop the food twice a day and give them some time to eat.



Pet snails cleaning and handling

Proper cleaning and handling of pet snails are very important. Like all other pets, snails also love to bathe and stay clean. The cleaning process of the snail's tank or a substrate is not difficult at all. But it takes a lot of care. You can clean pet snails tanks and substrate by following the steps mentioned below.

Change the Substrate

Changing the substrate once a week is enough. But if you feel like the substrate is dirty or soaked earlier, change it right away. The substrate is one of the most important things that help in the survival of the snail. Dirty, soaked, or uncomfortable substrate may

have bad or dangerous effects on the snail's health. Changing the substrate is not a difficult job, though, it needs a lot of care. Here are the easy steps on how to do it:

Potting soil

The potting soil is difficult to clean with water or any other cleaning fluid because soil particles are very small. It might be conceivable to place it in a sifter with little gaps (holes or lids) and afterward pressed dry. Though, the effectiveness of this procedure is still questionable. It tends to be sanitized in the broiler by heating it to 200°C during 1-2 hours. Please note, soil should be soaked before the snails can use it. Additionally, make sure it is completely cool, since it can store the heat very well.

Peat

A few kinds of peat are huge grained, and you may find that it tends to be flushed in case you are cleaning it through a strainer or any kind of colander. It tends to be sanitized in the stove by heating it to 200°C during 1-2 hours. It must be noticed that dry peat is permeable and should be saturated before putting snails back to it. Additionally, it stores heat as well, so ensure it is cool right through before returning the snail into its tank.

Coir

The process of sterilizing or cleaning the coir is the same as the potting soil. Coir can be sterilized by heating it up in the oven to 200C for almost 1-2 hours. Like the above two substrates coir is also absorbent of heat, so it is recommended to let it cool before putting snails back to it. In addition, moisturizing the coir before is also a good thing.

Cleaning the Tank

Washing the tank is recommended for at least once a week. In case you see the mold appearing, wash or sterilize the tank straight away, it can be dangerous for your snails. Tanks can be washed easily using hot water that kills harmful bacteria or with any prescribed sterilizer. Remember: adding any kind of soap or washing powder into the tank is not recommended at all. These chemicals in washing powders and liquids are quite harmful to the snails. While washing or cleansing the tank keep the following points in your mind:

- While cleaning the tank, keep snails in a plastic jar with a lid. Make sure the jar has a few holes for adequate ventilation.
- Wash the decoration or any other substances present in the tank as well. If something is rotten, remove or replace it with the new one.

Snails Bathing

Pet snails love to take baths. Giving snails a good bath is not only the thing they love, but it is also good for their health. It is recommended to give a good bath to snails once or twice a week. For doing so, fill a bowl with spring or filtered water and put snails into it carefully. Now keep adding a little amount of water to the snail's body and rub it using a soft toothbrush (rub the shell, not its soft body) don't rub too hard, it might damage the snail's shell. Let it enjoy in the water for a while and then put it back in its pot/tank. Don't use any kind of soap or cleaning liquid in the bathing water. A fresh bowl of water is enough to make the snail clean and active. It has been noticed that snails become more agile after bathing.



Life Cycle of a Snail

There are hundreds and thousands of snail species found on land, water, and seashores. Their lifecycle is different for each of them. Every snail has a different life span and different activities. But in general, the life cycle of the snail has the following steps:

- Birth and development.
- Reaching maturity.
- Finding a partner to mate.
- Mating process.
- Gestation period.
- Egg dropping

- Egg hatching.
- Death.

A life cycle includes all the stages a living thing goes through from birth to death. Snails have some unique features as compared to all other land animals. The age of sexual maturity of the snail is in between 5 weeks to 5 years, depending on the snail's species. Many snails are hermaphrodites, meaning they have both reproductive organs of male and female. They don't look for the partner and fertilize their eggs on their own. But some of the snails look for the partner and make love that is commonly known as "love darts." Snails lay down hundreds of eggs at a time.

Mating

Land snails participate in different kinds of activities in order to attract their mates towards themselves. They can last from a few hours to a biggest part of the day. They don't make sounds to draw attention, like cats or dogs, or all other land animals do. The reason is that snails aren't able to hear; they lack hearing ability. So they use other methods that involve seeing and touching and utilize contact as a method for seeking. When the mating is finished, they go in isolated headings. The snails breeding process includes sexual multiplication. During fornication, both the mates can push sperm to one another, yet it doesn't occur in all cases. The sperm are moved by utilizing a penis or spermatophore, leaving the body during intercourse. At that point, the sperm enters the body of the other snail to treat the eggs later. Despite the fact that snails are bisexuals, their mating is the customary way. They don't prepare themselves for this.

So when this mating process is done, and the snail is back to isolation, the eggs are being created in the body. Laying the eggs occurs in a few days, or sometimes it needs weeks; however, the time varies by the species. As they are wanton creatures, they can store sperm from past couples for quite a while, sometimes even for the years. Snails usually lay down around 100 eggs at a time, but in some studies, it has been found that some snail species can lay even 400 eggs at once. These eggs are little, and they will be dropped into soggy soil and secured. It can take as long as about a month for them to bring forth. Before laying the eggs, snails make sure that they have a proper place to store them. That's why they create a home for eggs by digging around 2 inches into the soil and lay 100 eggs over there. Snails are conscious of their eggs and know how to protect them. The snail produced a hundred eggs at a time, but only few of them reach maturity. The rest of the eggs are washed away or sometimes eaten by other living creatures. Land snails are capable of laying 100 eggs once a month.

Adulthood

The shell of the snail starts its development in the embryo. Under the idle conditions, snail eggs need from 2 weeks to a month to get hatched. The baby snail with a very tiny and soft shell comes out of the egg. In this manner, they have to take care of themselves to get calcium, and the principal source to get it is by devouring the remaining parts of their egg and other eggs that did not hatch or are rotten. Shells keep on developing as time goes on.

Usually, baby snails have very delicate shells and a soft skin that is mostly transparent. As they grow up, the shells become stronger, and the body color starts to change. Only few of them will get to the age of 1 year, since baby snails are food for many predators

and other animals like birds and etc. Baby snails need special care and handling. Even a little mistake can put their lives in danger.

The whole life cycle of a land snail is not long, unlike humans or other land animals. Snails can live from 2 to 7 years according to the species, but if the pet snails are living in the captivity, the life cycle extends to 10 or 15 years. The rings on the snail's shell indicate its age.

Hibernating

Some land snails go under the process of hibernation in which their heart rate and metabolism become slower. If this happens in summers, it is known as estivation. Otherwise, hibernation is more common for winters. During the whole process, to keep their moisture and protect from predators, snails lock themselves into the shell and secrete a layer of mucus called epiphragm. This layer of mucus keeps them safe and hydrated.



How To Breed A Pet Snail

If you want to increase the population of your pet snails, then make sure you are ready for this. As baby snails need a lot of attention and care. They are small little creatures with delicate bodies and shells. A little mishandling might lead them towards death. So here is a step by step guide on how to breed a snail.

Precautions

Make sure that you are capable of taking care of baby snails. Baby snails are tough to handle, and they might need your extra time. Once you have made your mind, to breed a snail, make a separate home for baby snails. Provide it with its natural habitat,

food, and substrate. In addition to that, be informed about the whole process of mating and reproduction. Study your snail's species in detail before breeding. Find out the answers to the following questions before the whole process:

- Is your snail ready for mating?
- Does the snail species look for a partner, or is it a hermaphrodite? If the snail isn't ready for mating, a breeding process might end up as a painful experience for both snails.
- Is your snail old enough? The mating process starts after six weeks of age.

A snail might need 4-6 hours for the mating process, but in the end, it depends upon the species you are keeping. Snails might sometimes need more than 24 hours. So let them be together until they transfer their sperms into each other.

Note: in case the snails have laid eggs already, and you are not ready for baby snails, you can stop these eggs to hatch, freeze the eggs for 24 hours and then put them into the bin. Or to prevent mating (if not ready to take care of a baby snail or to avoid increasing their population), keep an eye on the snail's activity. Sometimes you might see a snail with its male genitalia (a small penis) out. This is the long white stick-like thing present close to the snail's shell. Move the snail to a different terrarium until it has fully retracted. The penis will secrete a mass amount of sperms, mostly dull white in color. Once they have secreted them, remove it softly without hurting the snail.

Settings

Once you are done with all the research, now is the time to set a scene for the snail. Make sure that the soil you are using while breeding is moist enough. It should be moist up to 2 inches. As the snail digs the soil and creates a separate place for its eggs. Be sure that the soil you have bought does not contain any chemicals like fertilizer or pesticides. Any chemical would be dangerous for baby snails. The pH level of the soil should be above 7. Also, avoid using the soil from your garden, it might have pests that can eat eggs or baby snails.

Just like all other land animals and human, snails also need an adequate amount of air to inhale. That's why make sure the container or a pot has 2-3 holes or lids for better ventilation. Take care of all the basic needs, their substrate, food, airflow, an adequate amount of light, etc. Some snails hide in the shell during the daytime. They are reluctant to the light. So if you are turning on the light near their home, they might hide in the shell for hours. Keep them away from the excess of light or heat. Also, keep sprinkling water to make them moist and hydrated. Always remember that snails love the damp and the dark. You may miss the act of their breeding unless you take up nocturnal habits yourself or failed to provide them the natural habitat. There is not much else that can be done other than creating a hospitable environment for snails to lay eggs.

Waiting it out

Once you are done with all the precautions and settings, now is the time to wait patiently. Don't disturb snails over and over again. Watch carefully if they have impregnated themselves yet not.

It might take a period of 2-3 weeks before they lay a hundred eggs. It can take 1 to 4 weeks for the eggs themselves to hatch, depending on the species. Different Snails have different ways of laying eggs, some of them just lay down 100 eggs at once, but some separate them and lay few at a time.

Basically, it depends upon the snail species that are mating. It might take them a few more weeks to fertilize their eggs. All you need to do in the meantime is waiting and watching. The eggs will begin to hatch approximately in a month in certain species. It might take a longer period. All the eggs don't hatch at once, The first (usually an uppermost member) to hatch can be ten days or sometimes more.

Once the eggs start hatching, small baby snails with very delicate shells and bodies come out. Now is the time that you need to prepare yourself for a little extra effort. Keep these baby snails in a very idle environment. Give them proper food, water, moisture, and a lot of calcium. Yes, baby snails need a lot of calcium to make their shells harder and stronger. Baby snails love to play, carry them in your hands with care, play with them, and let them crawl. Be careful about touching or pressing their shells. It might hurt baby snails.



How To play with a Pet snail

Snails are great pets, not only these little creatures are cute, but they are also good human friends. Unlike other pets like dogs, cats, and rabbits, etc., pet snails need a lot of care while you are playing with them. Snails are small little creatures, and a little action can frighten them instantly. Once a snail is afraid of you, he might not come out of its shell for an hour.

It doesn't mean you cannot play with the pet snail, but you should provide extra care while playing with it.

Here is a brief guide on "How to play with pet snails."

Make Playtime safe

The first step, or we can say a precaution before playing with a snail, is to wash your hands properly. Use warm water, a good antibacterial soap, in order to kill all the germs and bacteria on your hands. Snails are delicate, even a small exposure to chemicals might hurt snails' bodies or their shells. Therefore, it is essential to wash your hands and to remove the soap from your hands properly. In addition, make sure that a room where you are planning to play with a snail is safe and secure. By securing the room, you are saving your snail's life and making the playtime a bit more fun. These are some important steps to make your room safe and secure:

- While playing with your pet snails, make sure there are no other pets, especially cats or dogs, present in the room. Other pets might frighten the snail, or it will hide away in its shell. Also, dogs might perceive snail as a toy or can even eat it too.
- Inform the rest of your family about what you are doing in the room. So no one at home will disturb you and your pet snail.
- Try listening to loud music or songs. Though snails don't have listening power, it creates an environment to play for a longer period of time.

In addition, select the right time to play with your pet snail. As it was mentioned earlier, snails don't like too much light. And mostly during day time snails hide in their shells, that's why the night time is the best to play with snails. The right time to play, when the snail is more active and fresh, is in the evening from 6pm to 8pm.

Pick up snail with a lot of care

Snails are little sensitive creatures with very soft and moist bodies. Picking them up with their shells or body might hurt them, or their shell might get damaged. The best and the safest way to pick up the snail is to let it crawl on your hands. Place your hand in front of the snail and give it some time, 2-3 minutes. Snail will automatically start moving towards your hand and then crawl on it. Once the snail is on your palm, make sure to move your hand slowly and carefully out. Moving your hand too quickly might scare the snail, or you can also accidentally drop it into the floor. Make sure to follow these steps:

- Place your hand carefully against a plain and smooth surface. Let the snail crawl from your hand onto this surface.
- Don't shake your hand or the table suddenly. It can frighten the snail.
- Consider creating a "playground" tank using rocks, obstacles, and even snail treats like apples, lettuce, or cucumber.
- Avoid lowering the snail to the floor. Since there is a chance that you or someone else could step on it.

Interacting with snail

Once you and your pet snail are in the playground, let the snail move. Don't stop it or try to move it in the opposite direction. It might hurt the snail or snails' shell. Let the snail crawl in a different direction. If there is food in the new playing area of the snail, there might be a possibility he will move around and investigate the food. In case your pet snail seems to be in a friendly mood, it will be okay to stroke its shell not very hard though. Stroking or touching the

shell is a great way to interact with your snail and to invite them to play with you. Keep the following points in your mind while interacting with your pet snail:

- Don't try to pick the snail up with something sharp.
- Always use two fingers to pick up the snail if necessary.
- Don't try to pick your snail up with its shell.

Put the snail back carefully

Now, as the playtime is over and you are done playing with your pet snail, put it back to its tank with a lot of care. Let the snail crawl down off your hand into its tank. Don't move the tank suddenly, or after the snail is back to its home. The snail might want to rest after a playtime. Now wash your hands again with a good antibacterial soap. The snail body is covered up in the mucus that shouldn't stay on your hands for a long period of time.

After returning the snail to its tank, make sure that the tank is secure and safe. The top lid of the tank should be closed properly, so no other pet or human will disturb the snail again. Or your snail might leave its tank and become lost if you don't secure the top of the tank.

- Place the top on your tank carefully.
- Make sure that the lid is completely closed, and there are no holes or gaps in it.
- Secure the tank with the clips or any other locks so no other pets can harm your snail.



Some Interesting Facts about Snails

Many people are not fond of snails and it is obvious why - mostly we don't have enough time to stop and what these amazing creatures for hours to disclose all the secrets. Snails might be too slow for a human, but they are amazing and interesting pets.

Here are some fascinating facts about snails:

There is no difference between a snail and a slug. Both have almost the same anatomy, habitat, food and habits. But slugs don't have the shell behind their back, and that's the only difference.

Otherwise, both of them are almost the same. So yes, you can keep both snails and slugs as a pet and enjoy the company of both.

Snails' life span varies from species to species. The life span of the snail is a matter of luck as well. Some baby snails are not lucky enough and they couldn't even manage to cross their first year (mostly eaten by pests, birds, or fish), whereas the lifespan of other snails might be as long as 25 years.

Slugs and snails are related to starfish. Slugs and snails are mollusks, putting them in the same category as oysters, clams, and mussels. Gastropods (the scientific terminology used for mollusks) are the largest group of mollusks, comprising more than 80 percent of living mollusk species. They're also one of the most diverse groups of animals when we talk about their lifestyle, habitat, food, etc. In addition to that snails and slugs are the largest living species on the earth, it is estimated that there are 150,000 species of snails that can be found everywhere on earth, from deserts to forests, from lakes to oceans. Walk-in your garden for 5 minutes, and you might see 2-3 snails. Snails are everywhere.

Snails are the inspiration for cupid as experts assumed that the fantasy or the concept of Cupid's bolt might originate from the mating ceremonies of *Helix aspersa*. It is a nursery snail. A portion of these snails shoots "love darts" at the object of their expressions of love, containing bodily fluid that expands the odds of their sperm enduring though, on prior occasions, individuals accepted that these snot rockets were endowments of calcium.

Snails are helping in medical science as well. Some researchers working at children's hospitals find out that mimics of snail's slime can be helpful in curing some heart diseases. The same gel that the snail's body secretes, it helps the snail in moving and climbing; this gel can also be used in repeating heart defects, though none of the experiments have been done on human yet. The snail gel, however, cures pigs heart defects, and it was quite surprising for researchers and scientists all across the world. In addition, some studies have also discovered that the mucus of snails is helpful in curing stomach ulcers as well.

Snails are poisonous too. Don't worry, land snails are not poisonous, so you can keep them as a pet safely. But some species of marine snails are deadly poisonous. The sea-based coin snail is considered to be one of the most deadly creatures living beneath the water. Even a single sting of that snail can cause the death of a human. Land snails on the other side are not poisonous at all, and you can have them at your dinner table as well. But make sure to cook them properly before you eat them.

Snails have an extraordinary smelling sense. The snail can smell its food even from a few meters. As it is mentioned already, snails lack ears and ear canal, and their sense of sight is not very strong. But snails have a very strong sense of smell. They can smell everything around them, food, obstacles, and danger. Its sense of smell tells it when it's dangerous around so the snail can hide in the shell. Precisely snails have extraordinary smelling sense.

Snails mucus can make your skin better. Some research and studies conducted with snail mucus proved that the slimy fluid is

good for treating the human skin. It helps to heal wounds by triggering an immune response that helps skin cells to regenerate. It is added to creams, covers, and serums. This healing ingredient is particularly famous in Korean beauty care products. However, it is important to collect raw material, clean it and use in the needed proportions.

Even Aquatic snails have lungs. Some freshwater snails don't inhale oxygen with the help of gills. However, depending on a kind of lung, they skim to the surface each time they relax. A few snails have the two gills and a lung. The apple snail has a siphon, a breathing cylinder that can extend up to the water's surface to inhale without presenting itself to predators.

Snails can kill starfish: some snails are so giant along with a lot of poison stored in them that they can even kill a starfish. Starfish flesh is one of the most favorite foods of marine snails. They love to paralyze starfish first, and later on, they eat it. Therefore, keeping marine snails as a pet is not recommended at all. Freshwater and land snails are good pets, though.

Snails were symbols of joy. The ancient Americans, especially Mesoamericans, believed that snails are a symbol of joy. They bring in peace, prosperity, and extended life span. The circles on the shell of snails were considered as a circle of life. The sea snails were also considered as a symbol of rebirth.

Snails love to dine in. They are obedient and lovely creatures to play with. Other than that, snails love family dinners and gatherings as well. They love to eat along with the family.

Snails are musical instruments too: there is a very large snail species commonly known as "conches". These are very long snails with the shells that can be used in different musical instruments as well. Shells trumpets play an important role in different musical instruments. People of ancient Greece, India, and Hawaii have been using these shells trumpets for music-related activities for a long period of time. According to the ancient greek mythology, the sea god Triton calmed the waves with the help of a conch shell trumpet.

Some snails have hairy shells: some snails that come from most humid places also have hairy shells. According to experts, hairy shells might be an advancement that helps in severe wet conditions. Shells with hair might be a surprising thing for you, but it's true. Most of the terrestrial snails have hairy shells.

Snails love parties: Patricia Highsmith, who wrote two novels, "Strangers on the train" and "Mr. Ripley," has always preferred snails over human beings. She used to keep her snails around even at the parties and dinners instead of having other people around. Patricia had around 300 pet snails. It is also mentioned that Highsmith used to be known for letting out her snails from the handbag and encouraging them to leave sticky trails all over the host's tabletop.

The world's smallest snail is the size of a needle: the sizes, structures, and shapes of snails vary with the species they belong to. There are many snails that are very long and strong. As for the world's smallest snail - it is equal to the size of the needle eye. A snail named *Angustopila Dominika* is the smallest snail living on the earth. Its shell is only 0.03 inches tall. It is said that if you can ever line up these tiny snails in a row, they can easily pass through the needle eye. In addition to that, any snail shorter than 0.2 inches officially falls in the category of micro-gastropod.



How To find a Snail

Among all of the snail species land and freshwater snails can be selected as good pets. Snails can be found in different places. You can buy a snail from a vet or pet store. Yes, they have a variety of snails. Also, vet stores can advice which species to select and how to take care of that particular snail. In case you don't want to spend money on buying a snail, don't worry, you can find them in their natural habitat. For example:

- rocks;
- debris;
- flower pots;

- wooden planks on the ground;
- damp, shady and humid areas;
- weedy or leafy areas close to your garden;
- if looking for aquatic snails, search nearby ponds, lakes, or other water bodies.

Catching a Snail

Once you have figured out the snail's habitat and found one snail that can be kept as a pet - it's a time to catch the snail. Forcing a snail or picking it up with its shell won't be a good idea. Instead, try to attract the snail. Rub the snail with your hand gently, so that your presence would not frighten it. Once it becomes comfortable with you, let it crawl on your hand. Now you can take the snail to your home, put it into its tank or container, and take good care of it.

On the other hand, aquatic snails are difficult to catch compared to land snails. For catching freshwater snails, you might need some tools. The easiest way of catching a freshwater snail is to use a kick net. Follow the steps below to catch a freshwater snail.

- Once you've bought a kick net, look for the areas that might have some water bodies.
- Approach the chosen areas, without disturbing or frightening the snails.
- Now put the kick net downside in the water body. You can use rock and pebbles to make it heavy (so that it stays in the water)
- Now, wait for half an hour or 40 minutes.

- The kicking net might capture all the invertebrates beneath the water.
- Filter out snails and put them in a container with lid and freshwater.

Wrapping up

Snails are really good pets. Though they need some special care, it's worth it. First of all, they can be a good company for your kids. Children can learn a lot by just observing them. Nevertheless, if you are a naturalist and prefer quiet activities - a snail will be a perfect pet even for you.

Doesn't matter if you already have a snail or just wanting to know more about these creatures, remember that we are responsible for those we tamed.



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