

Red-Eared Slider Turtle Care

Red eared sliders are semi-aquatic turtles that are very commonly kept as pets. Unfortunately, lack of understanding what they require means that many red eared sliders have died from improper care. While they are not overly demanding as pets, many unsuspecting owners have been told that it was fine to keep them in small plastic bowls. Needless to say this housing is completely inadequate and impractical - turtle owners need to invest a fair amount in the proper equipment to house red eared sliders. Once housed properly they are quite easy to care for, and with the proper care these turtles can live 75 years or more, so turtle ownership is not a commitment to be taken lightly. A full-grown red-eared slider can reach 12 inches in length (measured as the carapace, or top shell, length).

Males tend to be smaller than females, but have large claws on the front legs and longer tails than females.

Tank/Enclosure set up

Red-eared slider turtles are semi-aquatic and spend a significant amount of time basking, so need a tank that provides both water for swimming and an area where they can get out of the water for basking. A 40-gallon tank is considered a minimum, though larger turtles will need a larger tank to provide ample swimming room (see below) so even if you have a smaller turtle you might want to invest in a larger tank to allow room to grow. You do not need to use an aquarium though - large plastic containers or storage tubs are fine as long as you do not mind not being able to view the turtles from the side. As long as the tank is tall enough and the basking area is positioned so that the turtles can't climb out you won't need a lid. The basking area can be provided by stacking smooth rocks, sloping smooth large gravel to one side to make a land area, or using wood (fixed or floating).

However you design the tank though, keep in mind that turtles are messy and you will need to clean the tank frequently. No gravel is required in the tank but if you choose to use it make sure it is large enough that it won't be accidentally eaten.

Water and Filters

Red-eared sliders need an adequate amount of water to move about and swim a bit. You can judge if there is enough water by looking at the length of your turtle. The water should be at least 1.5 to 2 times as deep as your turtle is long (so a 4 inch turtle should have a minimum depth of 6 inches). The length of the water area should be 4-5 times the length of the turtle, and the width should be at least 2-3 times the length of the turtle.

Between feeding and defecating, turtles are pretty messy creatures. A turtle tank should include a good filtration system such as a power filter or canister filter, or an under gravel filter system (under gravel filters are not usually suggested as they do not provide enough filtration, water will have to be changed more frequently) Filtration will reduce the frequency of water changes, but your turtles will still require 25% water changes bi-weekly and a thorough cleaning twice a month or more. It is best to feed your turtle in a separate container to minimize the mess in the tank and reduce the load on the filtration system.

Heat

A submersible heater should be used to keep the water at 75-86 degrees F. Get a good aquarium thermometer and monitor the water temperature. Turtles will want to investigate the heater so turtle proof it by placing it behind something so the turtles can't bump or move it (a broken heater is a potentially lethal situation). For turtles determined to play with or bump the heater, you can place the heater inside a section of PVC pipe. Choose a piece with a diameter wider than the heater and a bit longer than the heater, and drill many holes in the sides of the pipe to allow water circulation past the heater.

A heated basking spot should also be provided in the area provided for the turtle to get out of the water. An incandescent bulb or spotlight can serve this purpose, but make sure there is no way the turtle can touch the light or that the light can fall into the water. The temperature at the basking spot should be 85-88 F. Watch the water temperature when the basking light is on as it may heat the water.

The ambient air temperature around the tank should ideally be about 75 F. If the turtle's room is cooler than this you should provide extra heat in the tank area. A ceramic heat element used near the tank works well for this purpose since it can be left on day and night.

If the room the turtle is being kept in is always over 75 F (23.8 C), then you will only need to heat up a basking area, rather than heating up the room, too. Using an incandescent light or spotlight, allow the area closest to the light to reach 85-88 F (29.4-31 C).

Make sure there is absolutely no way for the light to fall into the water or for the turtle to come into direct contact with the light bulb. Be aware that the light will heat up the water to a certain degree so be sure to monitor the water temperature.

Young sliders, and any sick turtle, should be kept warmer (water temperatures between 82-85 F) than the average healthy adult. Sustained low temperatures (between 65-72 F [18.3-22.2 C]) will cause turtles to stop feeding and respiratory infections may result.

If the room is not warm enough to provide the turtle with the proper air temperature gradient, you will need to supplement the heat, providing another source of heat that may be used day and night in addition to the basking light. One alternative is to use a ceramic heat elements (CHE). CHEs screw into regular incandescent sockets and come in a variety of watts, and last a very long time.

Safety warning: you must install CHEs into porcelain light sockets. These devices throw enough heat upwards to melt plastic sockets.

Note: Do not guess at the water or air temperatures. Reptile species have very specific temperature ranges during the day and during the night. If your guess is off, that will make the difference between a reptile that thrives, and one who merely survives - or dies. Use thermometers.

Special Lighting

On sunny days when the outside temperatures are warm, feel free to put your turtle outside for a while for some sunshine. Either move your turtle tank outside (so long as it is not a glass enclosure, which can overheat to the point of causing fatal hypothermia), or set up a secure outdoor enclosure for your turtle to sun and soak in, or set up an indoor enclosure complete with a UVB-supplemented basking and a swimming area. The latter will be required if you cannot regularly get your turtle outside or otherwise safely exposed to sunlight (not filtered through plastic or glass), or live where the amount of natural UVB is not sufficient year round to enable your turtle to make the amount of pre-vitamin D it needs to ensure adequate calcium metabolism.

Keep in mind that, in the wild, when turtles get too hot when basking in the sun or upper layers of sun-heated water, they simply dive into deeper, cooler, water or move into a cool pocket of wet bank side overhung with plants providing shade. So, while it is great to give your turtle some direct sunlight, you must guard against it getting too hot, which can result in fatal hypothermia. If you cannot provide a suitably cooler retreat area your turtle can go to when it gets too warm, and you can't keep a direct eye on your turtle to watch for signs of overheating, do not put it outside. Enclosures are like automobiles: the temperatures inside reach 20-30 degrees hotter than the outside air temperature, making the inside potentially lethal on mildly warm days.

Exposure to a ultraviolet B (UVB)-producing fluorescent light, such as a Vita-Lite®, is recommended by some turtle experts, and is considered mandatory by others. UVB exposure is an essential part of the calcium metabolism process, and calcium deficiencies are very common in captive turtles. Many herpetoculturists use UVB-producing fluorescents because of their importance in calcium metabolism but also because the UVA they produce may have subtle psychological benefits such as improved appetite, since many reptiles see into the ultraviolet range.

Electric Shock Hazard

As with tropical fish, there is a danger of electrical shock--to you and to the turtle--when using electric filters, water heaters and lamps in and around the tank of water. All electrical cords should be connected to a ground-fault interrupter, which shuts

off the current if anything happens. Buy one at your local hardware store. Do not use bulbs with higher wattage than your light fixture is rated for (in other words: no 100 watt bulbs in 60 watt fixtures). Turtles will investigate and knock things about. You must secure your water heater behind an immovable wall or partition to turtle-proof it.

Diet

Both aquatic and terrestrial turtles have similar feeding habits, although aquatic turtles seem to keep eating meat even when they are older, whereas terrestrial turtles have a tendency to eat more vegetation. Older turtles eat less meat because they require less protein, therefore, special care must be taken not to overfeed turtles with protein rich food. **High levels of protein put an abnormal stress on the kidneys;** this has been implicated in shell deformities such as pyramiding. It is best to avoid excessive use of meats intended for human consumption and other high protein food sources such as cat food or dog food. When used sparingly as part of a varied diet, no harm is likely to result, but high protein meats should not be used as a staple).

Reproducing the natural diet as much as is possible will make your turtle happier and healthier. In the wild, turtles choose from among a variety of foods that are in season and available. **Variety** is one key to a good diet for your turtle. **Calcium** is the other important key.

You can read about the complicated relationships between calcium, phosphorus, vitamin D3 and other elements at several websites, the important point to remember is that phosphorus is in most of the foods that turtles eat. It is the calcium side of the ratio that demands attention. Providing calcium separately allows the turtle to decide when it needs more calcium. Cuttlebone, plaster block, boiled and crushed eggshells, and crushed oyster shell can all provide calcium on demand. Just providing a good source of calcium is not enough, however. Dietary calcium is not properly utilized in the absence of vitamin D3. Turtles can manufacture D3 if provided access to UV-B rays from direct sunlight or a good reptile light (e.g. Reptisun or Reptile D-Light.) Or D3 can be provided in the diet through supplements like Rep-Cal. A few foods block the absorption of calcium because of their high oxalic acid content. **Spinach** should be avoided for this reason. A turtle fed spinach regularly can become calcium deficient even if a good source of calcium is provided. Chard and rhubarb also

contain rather high levels of oxalic acid and should be used sparingly, if at all. (Rhubarb leaves are so high in oxalic acid that they are a deadly poison).

These supplements can be fed in a "turtle meat-loaf", consisting of 1 teaspoonful of calcium carbonate and 1 tablespoon vitamins mixed with 1 lb of very lean ground beef (grind a very lean piece of sirloin in a food processor or blender, you can ask your butcher to give you the leanest piece he has and you can remove any extra fat from the meat when you get home. Turtle "meat-loaf" can be made in advance, and frozen in serving size portions. Defrost it thoroughly prior to feeding. Small turtles should be fed every day and larger ones two to three times per week. (Meat Loaf can be give every second or third feeding, as long as another source of calcium is offered (ie Cuttlebone, plaster block, boiled and crushed eggshells, and crushed oyster shell)

Foods To Avoid

- 1) Members of the brassica family (Cabbage, brussel sprouts, broccoli, bok-choi, and kohlrabi) are problematic because excessive amounts of these plants contribute to kidney disease and goitre. Turnips, soybeans, radishes, rapeseed, and mustard also contain goitrogens. These should be used rarely. However, the addition of kelp to the diet may reverse the goitrogenic effect of the brassicas.
- 2) High purine foods, which include peas, beans, mushrooms, shellfish, beef, and organ meats, should be used sparingly because they can contribute to gout if overused.
- 3) Head lettuce and celery are "empty" foods in that they provide very little useful nutrition or fibre. In my experience, all the turtles I've known preferred other foods to lettuce, but there are many people out there who feed lettuce almost exclusively. This is a recipe for a long miserable death. However, there may be some benefits in occasional feeding of lettuce. There is some evidence that it contains antiseptic properties. Additionally, celery or lettuce can be used to entertain a turtle that is already well fed. When a turtle begs for food after already eating some slugs, a big leaf of dandelion, some cantaloupe and a chunk of cuttle bone, it will do no harm to toss him a lettuce leaf or a bit of celery.

- 4) Canned and other processed foods often are very high in salt and other preservatives. The effects of these things are not fully known, but they would not be part of a natural diet. You should limit their use.

It all comes down to variety. If you feed just cantaloupe and crickets, there will be problems down the line. There's nothing terribly wrong with those foods. They're simply insufficient. If you feed a wide variety of foods, the occasional use of cabbage, cooked beef heart or lettuce will not cause problems. Feeding low calcium foods will matter not at all if a separate source of calcium (cuttlebones, plaster blocks, eggshells' crushed oyster shell) are always available. This is more in keeping with the way turtles feed in the wild anyway. Although you may want to carefully consider the phosphorus: calcium ratio, turtles do not waste a precious second pondering the chemical makeup of their food. If it is tasty and it is there, they will eat it! Later, they will munch some carrion bones or birds' eggshells and get caught up on calcium. Turtles fed a wide variety of foods are happier and less likely to develop food preferences.

Try As Many of These Foods As Possible

Greens:

Aquatic plants, collards, turnip greens, red and green leaf lettuce, romaine lettuce, dandelion, chickweed, plantain weed, carrot tops, red lettuce, endive, fig leaves, grape leaves, sow thistle

(avoid spinach)

Veggies:

Good--squashes, peas in the pod, okra, grated or sliced carrots, sweet potatoes

Okay on occasion--green beans, wax beans, and tomato

(Avoid cabbage or broccoli)

Fruits:

Good-- figs, grapes, cantaloupe, blackberries

Okay on occasion-- banana, strawberry, apple, and citrus fruits, blueberries

Flowers:

Geraniums (Pelargonium species), Chinese Lantern (Abutilon hybridum not Physalis sp.), nasturtium, borage, hyssop, carnations, daylilies, petunia, pansies, chives, dandelion, rose and rose hips,

Meats:

Good--silkworms, earthworms, crickets, snails, shrimp, slugs, wax worms, mealworms

Okay on occasion--cat or dog food, boiled eggs, and lean beef

(Hamburger and other fatty red meats should be avoided, and never use raw meats because of contamination dangers).

Fish

Good - You can feed any fish to your turtle, as long as it is alive or fresh. You can soak vegetables in tuna water if they are just getting used to eating veggies, or refuse to eat them, but **do not give your turtle the tuna flesh**

Never feed your turtle processed fish, or fish that has been frozen.

Prepared turtle foods:

Tetra's Reptomin, Wardley's Reptile T.E.N., Turtle Brittle, Purina AquaMax

Supplements:

Reptile Tri-Cal or Rep-Cal are the best calcium/D3 supplements by far. A jar of Rep-Cal is rather expensive, but lasts a very long time. Tri-Cal even comes in a handy shaker bottle. Use once a week. Vitamin supplements may also be used.

(Do not use any supplement that has phosphorous in it.)

The thing to remember about Red-Eared Sliders is that they start out life eating mostly bugs, worms and other meats, but becomes more omnivorous as they mature. So a wide variety of foods will make/keep your turtle happy and healthy.

Health Concerns

Most turtle ailments are the results of improper diet, lack of natural sunlight, poor hygiene, or being kept at too low a temperature. Sick turtles should be isolated from other turtles, as should all newly acquired turtles, for at least 6 weeks (6 months is preferred by some hobbyists) and watched for disease symptoms before being placed back with your others.

Fungus appears as white or grey specks, furry spots or lumps on the fleshy parts. Any turtle suffering from this should be seen by a veterinarian specializing in exotic pets. Adding 1/4-cup table salt to each five gallons of water is a good preventative. Fungus remedies sold for tropical fish can be added to the water. Shell and skin fungus can be painted with 2% gentian violet and allowed to dry for 6 hours before putting the turtle back into clean water. Natural sunlight is beneficial, but be careful not to let the turtle overheat.

Shell rot is a serious problem. Symptoms include a discoloration under the shell surface, soft or spongy areas on the shell surface, and discharge of a rotten smelling liquid when the area is squeezed. A turtle suffering from this should be immediately taken to veterinarian specializing in exotic pets. The rotted areas must be scraped

clean, and covered Flamazine ointment, and rinsed with an iodine wash for 14 days. During treatment the turtle is kept out of water except for a daily soaking and during feeding.

Swollen eyes and a soft shell may be due to a poor diet and a lack of natural sunlight. Add vitamins and a calcium source to the diet, and give the turtle access to unfiltered sunlight or a Vitalite. Ophthalmic ointments applied under the eyelids may be beneficial, but only on the suggestion of a qualified veterinarian.

Turtles are highly susceptible to respiratory tract infections. Symptoms include listing to one side when floating, gasping, a runny or bubbly nose, and swollen eyes. The turtle should be kept warmer than usual (85-90° F). If these conditions do not improve in a few days consult a qualified veterinarian.

Flesh injuries resulting from bites, scratches, or cuts can be treated with antibiotic ointments such as Polysporin or Terramycin. Apply twice daily and keep the turtle dry for 8-10 hours after each application. Injured turtles must be brought inside immediately to prevent flies from laying eggs in the wound and producing a maggot infestation.

If physical injuries occur try to eliminate the cause. Basking rocks should be checked for sharpness and replaced if too sharp or abrasive. Make sure that nothing can trap the turtles underwater since they can drown. In the remote chance that this should happen, it may be possible to revive the turtle by pushing or pulling the limbs in and out of the shell to force air into the lungs. When it is breathing on its own, put the turtle on dry land to rest and recover. Before putting it back in its home, correct whatever condition caused the near drowning.

Certain odd occurrences and behaviours may cause alarm but are quite normal. Turtles shed their skins periodically, and some turtles shed the transparent covering of the scutes on the outside of their shells. In the fall turtles may refuse to feed and behave sluggishly, but this is a normal prelude to hibernation. During the breeding season females may become very restless, refuse to eat, and pace around the enclosure as they look for a suitable place to lay their eggs.