

Turtles (aquatic, semi-aquatic)

Genus: *Trachemys* (sliders), *Pseudemys* (cooters), *Chrysemys* (painteds), *Graptemys* (maps)



****Many subspecies of these turtles are protected and are illegal to own in many states without special license to keep. If one of these turtles is indigenous to the state you live in, they are most likely illegal to keep as a pet.**

LIFE SPAN: depending on species, 30-40+ years **AVERAGE SIZE:** up to 12 inches

CAGE TEMPS: Ambient / 75 degrees **HUMIDITY:** 60-70%
Basking / 85 - 88 degrees
Water temps / 75 – 80 degrees

- If temp falls below 70° at night, may need supplemental infrared or ceramic heat

NOTE: It is against federal law for turtles under 4 inches in length (from front of shell to back of shell) to be sold in pet stores.

WILD HISTORY: Most turtles sold in pet stores and from breeders are native to the United States. Different species range from different areas of the country. Most of these turtles are wild caught, and usually suffer some stress from being caught and from traveling. Because of this, they generally suffer from a heavy bacterial and protozoan load, which can result in infections. Be sure to see your exotic pet veterinarian soon after purchasing your new turtle. He or she will perform a complete physical exam and then de-worm your new pet. Be sure to take a fresh stool sample along with you!

PHYSICAL CHARACTERISTICS: Turtles are aquatic, or semi-aquatic.

They have soft bodies incased in a top shell (carapace) and a lower shell (plastron), which protects them from predators. The geometric shaped scale sections of the shell are called “scutes”. The scutes cover up the seams between bone plates underneath, making the shell stronger.

Turtles have webbed feet for swimming and long claws for digging. Males generally have longer claws than females. Most aquatic turtles can retract their legs fully into their shell.

Turtles have beaks, not teeth, and they do not have external ears although they can hear just as well as animal that do.

The turtle eyes and nose are positioned near the tops of their heads so they can stay mostly submerged in the water while still being able to breathe and see. This also helps them hide from predators.

The turtle tail is short and stubby, the male turtle tail being longer and slightly wider than the female's.

NORMAL BEHAVIOR & INTERACTION: Turtles are happy to live along with other turtles, given that there is enough space for everyone. Do not attempt to include another species in the turtle tank, such as frogs or fish. They will surely become lunch.

NOTE: Do not house turtles with other species due to the differences in care, temperatures, and the fact that some species can be highly stressed in the presence of other species. Each species may also harbor different parasites/protozoans/bacteria (even a healthy reptile harbors a small amount at all times), which may make each other ill.

FEEDING: Omnivorous, live food and vegetation.

Juvenile turtles must be fed every day (increase protein for these guys).

Adults can be fed once every two to three days.

Feed as much as your turtle will eat in 15 minutes time – and no more.

PROTEIN: Protein should constitute no more than 25% of the diet

Turtles eat live protein sources such as: gut-loaded crickets, earthworms and wax worms.

Wild caught insects should never be fed, since they can carry disease.

Smaller feeder fish can also be fed, but not on a regular basis, as they are deficient in thiamin.

COMMERCIAL DIETS/PELLETS: Commercial diet should constitute no more than 25% of the diet.

There are some very good turtle pellet diets on the market. Be sure to look at the labels and choose a product with quality ingredients.

VEGETATION: Vegetables should constitute 50% of the diet.

Fresh vegetables such as dark leafy greens – collard greens, beet greens and dandelion – can be fed, along with fresh vegetables such as sweet potato, green beans and carrots. Raw fruits (no canned fruit, which has sugar added) should be offered as well. Live water plants from the aquarium section will be happily enjoyed too! Just drop them in and watch them disappear. However, be careful about introducing “duck weed” to your enclosure – it’s very invasive and difficult to get rid of.

Chop all fruits & vegetables well so your turtle can eat them easily, with the exception of the live water plants.

Turtles must be in water to eat. They have fixed tongues, which only allow them to swallow while in the water.

Amounts of feed depend on different factors such as enclosure, exercise, heat and lighting. Contact your exotic pet veterinarian for advice on how much to feed YOUR turtle.

Some turtle owners prefer to feed their pet in a separate enclosure so uneaten food does not add to the degradation of the water quality in the tank. Simply choose a plastic tub container, which will be dedicated to this use, and scoop water into it from the main tank. Place your turtle in and commence feeding! When your pet is finished eating, discard the water from the tub, place your turtle back in the tank, and replace the amount of water that you took from the tank with fresh, de-chlorinated water.

This process also serves as a partial water change.

SUPPLEMENTS: Dust food with calcium supplement and vitamin supplements. As a rule, a growing juvenile's food (and a pregnant/gravid female's) should be dusted more often than an adult's. Follow your veterinarian's instructions for applying supplements to avoid over-supplementing food.

Our veterinarian recommends dusting insects with a good quality calcium supplement fortified with vitamin D3, 2-3 times a week. Avoid using a calcium supplement with added phosphorous, unless specifically directed by your veterinarian, since this can promote kidney disease.

Always consult your veterinarian for specific directions on supplementing your pet's food, since there are many variables that go into determining the best supplementation regimen for each animal.

SHEDDING: Turtles do shed their skin and the surface of their shells. The shell will shed in thin, translucent pieces shaped like the scutes. The skin will shed in wispy, thin pieces that look like tissue paper in the water. Excess shedding is a sign of illness.

RECOMMENDED SUPPLIES:

40 gallon / 75 gallon fish tank with secure mesh reptile tank top & clip locks	Lg. dome and 100 watt bulb for 40 gal (36x18 tank) Lg. dome and 150 watt bulb for 75 gal (48x18 tank)
Large pebble gravel to cover the bottom of the tank to 2" depth.	Temperature / humidity gauge – do not stick to side of tank
High efficiency water filter	2 thermometers – one regular reptile thermometer, 1 underwater thermometer to monitor water temps
Underwater heater	Fluorescent UVB Bulb and housing
Smooth shale rocks or “turtle dock”	High quality commercial turtle diet
De-chlorinator	Gravel vacuum for removing water from tank and cleaning gravel
Calcium supplement	Turtle book

HOUSING & ENVIRONMENT: Turtles are aquatic, or semi-aquatic. This means you must provide both water and a land area in your pet's enclosure. Turtles, being reptiles, are also ectothermic. Proper heat and UVB light is extremely important for your pet's general health.

Although some turtle owners begin with a smaller set-up for their younger and smaller turtles, this is often not the most cost-efficient process. Keep in mind that if you start with a smaller enclosure, in a year or two's time, you will be purchasing yet another tank. While some of the equipment can be transferred over to the larger tank, it WILL require a

new and larger filter, cover, a stronger heater, larger heat lamp and more gravel. By purchasing the larger tank first, you will save money and hassle for the long term. Also, larger tanks are easier to keep clean. Toxins and waste will be much more concentrated in a smaller tank, and it will require more frequent cleaning, especially as your turtle grows.

IT IS NOT TRUE THAT A TURTLE WILL ONLY GROW TO THE SIZE OF ITS ENCLOSURE ALLOWS!!!!

ENCLOSURE SIZE: Be sure to provide a minimum of 40 gallons of tank space per turtle. For two turtles, such as painted turtles or sliders can grow to be up to 12 inches long, provide at least 75 gallons. Map turtles will stay a bit smaller, so 40 gallons is a sufficient size for 2 map turtles.

FLOOR: The floor of the turtle tank should have one to two inches of gravel. Choose larger “pebble” gravel, as your turtles will pick up the gravel and roll it around in their mouths to eat the algae off of it. If the gravel is too small, the turtle may ingest the gravel, which may move into the digestive tract and create an impaction.

Be sure to rinse the gravel well **BEFORE** adding it to the tank.

NOTE: If you are not using an under-gravel filter, gravel is not absolutely necessary. It is fine for the tank floor to be bare.

WATER AREA: All water used for turtle enclosures must be 100% free of chlorine and heavy metals. (Not all home water filtration systems remove 100% of the chlorine and heavy metals from tap water). If tap water is used, it should be treated with a de-chlorinating treatment at every water change. If you do not want to chemically de-chlorinate the water, you can leave a large open container of tap water out for at least 24 hours. The chlorine will naturally dissipate. De-chlorinator is available in the fish department.

DO NOT use distilled water, which can cause severe medical problems, since it lacks minerals that are essential to important body functions.

Fill the tank (with the gravel already in) halfway with water. If you will be using rocks as a land area, fill less than halfway, as the rocks will displace much water. (See: “LAND AREA” below). Rearrange the gravel as necessary.

Water temperature should be a steady 75-80 degrees

LAND AREA: A land area can be made from flat, rounded rocks, such as shale, or from a purchased “turtle dock”. Rocks can be piled up to create a land area on one side of the tank. Be sure that the rocks are stable and will not topple under your turtle’s weight. A portion of this area should have a basking area. “Turtle docks” are waterproof Styrofoam attached to metal posts, which suction cup to the back glass wall of the tank.

FILTRATION: Turtles are very messy reptiles, and they defecate in the water. Water filtration is a **MUST** for a healthy, clean turtle tank.

Choose an underwater filter, an under-gravel filter, or a canister filter, all of which are available in the pet store. Be sure to choose a filter that can keep up with the number of gallons of water you have in your tank. Although the tank will only be filled half way with water, it is always best to purchase a filter that has the ability to filter more than you need, as turtles create A LOT of waste. A filter that cleans a tank 2-3 times the size of your tank (if it were full) will do a good job. If you do not purchase a filter, it will be impossible to keep your turtle’s tank clean enough to keep him healthy.

COVER: Make sure the cage has an escape-proof metal mesh top. It should fit snugly onto the tank and have strong clips locking it on. It is important that the top is **METAL** mesh, as you will place the heat lamp directly on top of this cover.

WATER HEATER: Choose an underwater heater. Some heaters are made specifically for turtle tanks; they are stronger and can hold up to turtle bites and kicks. The heater works on a thermostat and will keep the water at the temperature you set it for. Turtle water should be a steady 75-80 degrees (ideally 78 degrees).

Be sure the heater has been underwater for at least 30 minutes before plugging it in; and never pull the heater out of the water while it is still plugged in! (It will break)

Tuck the heater down in a corner where it will be out of the way.

HEAT LAMP: Place the heat dome with the basking bulb on top of the cage directly over the corner of the land area. The basking temperature should be 85 – 88 degrees. The heat lamp should be turned on in the morning, and off at night. (See “Day/Night Light Cycles” below).

The lamp dome can be placed directly on the metal mesh tank cover.

NOTE!! : Follow directions carefully with all products – **READ THE INSTRUCTION SHEET!!**

Always choose fixtures with ceramic sockets and be careful to choose the socket that is properly rated for the wattage bulb that you will be using. Do not place the fixtures by dry wood or flammable fabrics.
All heaters should be placed out of the reach of children and all pets – including cats and dogs.
Be very careful to make sure that your caged pet cannot reach and touch the heating device in its own cage. A thermal burn to the face or body can be painful and life threatening.

BASKING AREA: A warmer basking area matching the temperature listed at the top of this care sheet must be established on the warm side of the cage. This area is directly under the basking bulb and will be higher in the cage for arboreal species. The basking area should be the warmest area in the enclosure. Maintaining the proper temperature in this spot is extremely important to the health of your pet.

UVB LIGHT: Exposure to UVB (ultraviolet B) light is critical in allowing an animal to synthesize vitamin D3 in their skin and metabolize calcium in their body.

If an animal is not exposed to an adequate level of UVB light, it will gradually develop physical problems from the result of mineral deficiencies such as low blood calcium (hypocalcaemia), soft eggs (females), stunted growth and metabolic bone disorder, which can be fatal if left untreated. In addition, recent studies have linked sub-optimal vitamin D levels with poor immune system function.

All day-active (diurnal) indoor reptiles, amphibians, birds and hermit crabs should be allowed self-selected exposure to UVB lighting for up to 8-12 hours a day. This means they should be able to bask in the light but also get away if desired, much as they might in the wild. Many twilight-active (crepuscular) and night-active (nocturnal) species do get some exposure to the sun and may also benefit from low levels of UVB, which helps regulate their photoperiod and vitamin D levels as well.

Please see our additional “UVB Lighting for Companion Birds and Reptiles” for specific instructions for your particular pet and the UVB bulb that we recommend for him or her.

TEMPERATURES: Cage temperatures should be monitored daily and kept at the temperatures listed at the top of this page. Use your thermometers (both air and water) to check the temperatures in different places in the cage regularly to make sure they continually match the listed proper temperatures.

* If the room temperature falls below 70 degrees at night, a supplemental infrared or ceramic heat fixture may be necessary. (These fixtures do not emit a light spectrum that is visible to the turtle, so it will not disturb him at night, but they WILL provide the necessary supplemental heat.)

If your turtle does not receive the proper heat at the proper temperatures along with UVB light, he may become sick with issues such as respiratory disease and will probably stop eating, as turtles have a hard time digesting their food without proper heat and light.

DAY/NIGHT LIGHT CYCLES AND HEATING: All reptiles must have distinct day and night periods in their enclosure to maintain their biological rhythms. Turtles need 8-12 hours of daytime and 8-12 hours of nighttime. However, as the daylight hours change seasonally outside, daylight hours inside the tank should reflect the same.

The day period must be light, and the night period must be dark.

A timer should be used to set day/night periods.

HABITAT MAINTENANCE – WATER CHANGES: It is VERY IMPORTANT to keep a high water quality in a turtle tank. Some turtle owners do partial water changes 2-3 times a week in order to keep the water pristine and their turtles healthy.

To make it easier to maintain the proper water level while performing water changes, simply make a mark at the desired water level on the tank with a black sharpie pen. It will then be easier to refill the tank up to this level.

PARTIAL WATER CHANGES: Remove a few gallons of water by either vacuuming the water out (get deep into gravel to pull waste out if there is gravel in the tank), or just remove the water if there isn't gravel on the bottom. Do move “furniture” in order to release any trapped waste.

Replace the number of gallons with fresh, de-chlorinated water.

FULL WATER CHANGES: For FULL water changes, fill the tank the remainder of the way to the very top with fresh, de-chlorinated water. Then, simply vacuum the water out back down to the half way mark. While vacuuming the water out, be sure to get your vacuum down into the gravel and move the “furniture” to release all the trapped waste.

GROOMING & HYGIENE: To reduce the risk of contracting and spreading salmonella poisoning, all handlers should wash their hands after handling any reptile.

SIGNS OF A HEALTHY ANIMAL: smooth, even skin; clear eyes, rounded, full body; strong, even, smooth jaw line; bright eyes.

It is very important to keep a journal for each animal that records feeding, refusal, shedding, unusual behavior, changes in behavior and dates of bulb changes. This will help your veterinarian trouble-shoot any health issues.

We recommend physical exams every year or two years with an exotic pet veterinarian for pet reptiles and amphibians. If your vet sees your pet regularly, many common conditions that afflict pet reptiles and amphibians can be caught and treated early. If not caught early enough or if left untreated, many of these conditions can become far worse if not fatal.

SIGNS OF ILLNESS: Irregular skin; excess shedding; irregular jaw line, shell that is soft, or too small for body, cloudy eyes or dull colored body when not in a shed; bloating or thinned body; irregular feeding and defecating habits. Limp, thin body; lethargy, sunken eyes, closed eyes, wheezing, nasal discharge, pinkish patches or spots on belly or sides; obvious wounds from cage mates or prey.
Irregular, ill-fitting shell, soft spots or discolored spots on the shell. Failure to eat.

SOME COMMON PROBLEMS INCLUDE:

HEALTH ISSUE:	SYMPTOMS:	TREATMENT:
Shell rot, ulcerations,	Soft areas on shell; may be white in color or darker than the rest of the shell. Shell may appear bumpy overall.	See exotic pet veterinarian
Bacterial and parasitic issues "Worms"	Failure to grow, loss of appetite, abnormal stools	See exotic pet veterinarian (fecal parasite evaluation and appropriate medication)
Respiratory Issues	Lethargic, runny or crusty nose, loss of appetite, audible whistle in breaths.	See an exotic pet veterinarian immediately. May need antibiotics.
Calcium/phosphorus imbalance	Failure to grow, weakness, limb deformities and fractures, seizures Shell too small for body	See exotic pet veterinarian, ensure optimal diet with proper calcium supplementation and UV light

©2012 Dawn M. Trainor – edited 5/2014
Courtesy of: Specialized Care for Avian & Exotic Pets
In conjunction with Pet Supplies "Plus"
10882 Main Street, Clarence, NY 14031
Ph (716) 759-0144
www.buffalobirdnerd.com