

Care Cards

Water Dragons



There are three known species of water dragons: Chinese (*Physignathus cocincinus*), Australian (*P. lesuerii*), and the Southeast Asian (*P. temporalis*). *Physignathus temporalis* is currently under investigation and may be moved into another genus. The Chinese water dragon (also called the Thai or Asian water dragon), is by far the most popular and therefore the majority of information will be about that species. Water dragons are medium sized reptiles with a calm temperament. They are arboreal and can reach a length of three feet at maturity. Water dragons are excellent swimmers, divers, and climbers. They reach sexual maturity at two years of age and can be sexed by the femoral pores on the underside of the hind legs. Additionally, adult male water dragons have large angular heads with three distinct crests (nuchal, vertebral, and caudal). If frightened, a water dragon can actually run on only its two back legs.

When purchasing a water dragon, you should first ask if it is wild caught or captive bred. If it is wild caught, ask the seller to feed the reptile so you can verify it is eating prior to purchase. Although occasionally captive bred reptiles will be reluctant to eat in new surroundings, the situations are more frequently observed with wild caught reptiles. A healthy water dragon will be active and alert. The lizard should be aware of you approaching its enclosure. The skin should

be free from sores, crusts, or other lesions. You should not be able to see the ribs or the bones of the pelvis. The toes should all be present and functional. The nostrils should be free from discharge. The eyes should be clear and alert.

Physignathus cocincinus water dragons have light green skin with yellow, blue, and orange mixed in. They prefer a more tropical environment and are native to the rain forest. *Physignathus lesuerii* water dragons have an overall brown to black color to their skin. They prefer a more dry and rocky forest-like environment.

Adult water dragons can reach a length of three feet; because of this their enclosure should be as large as possible. Water dragons are arboreal so their enclosure should have both branches for climbing and basking, as well as a large water container for soaking and swimming. Water dragons enjoy climbing and their enclosure should have several branches in it. A unique behavior of water dragons is jumping off branches when approached by the owner. A thick substrate will help prevent injury during this activity. Water dragons are good swimmers and will spend a lot of time in the water if the container is large enough. Water dragons can remain under water for up to one hour at a time when soaking. The water container should have easy access for entry as well as exit. Water dragons will also defecate in the water so it should be changed regularly to help prevent disease.

There are several options for cage substrate for water dragons. Water dragons like to dig in nature and this should be kept in mind when choosing a substrate. Both sexes will dig burrows, and the females will dig a nest for egg laying. My preferred items are either sand (play sand, not cement sand) and crushed walnut. Both items are ideal for digging and should be placed in the enclosure at a depth of 8 to 12 inches. Artificial turf-type

carpets, newspaper, and butcher's paper may be used and do provide for an easier substrate to keep clean. A plastic container filled with sand will provide a digging area for the reptile.

Live plants will add color, hiding places, and humidity to the enclosure. Expect wear on the plants from normal activity. Additionally, make sure any plants used in the enclosure are not toxic in case they are ingested. Water dragons like high humidity, and frequent misting of the plants as well as the reptiles will help maintain these levels. Cage temperatures should range from 85 to 93 degrees Fahrenheit in the day and 70 to 77 degrees Fahrenheit at night. A slight drop in the day and night temperatures of five to seven degrees Fahrenheit during the winter months will help stimulate normal breeding activity.

Water dragons are susceptible to metabolic bone disease and should always have a quality, full-spectrum ultraviolet light with their enclosures. Additionally, exposure to direct, unfiltered sunlight will provide additional stimulation for calcium absorption, bone formation, and normal breeding cycles. I recommend the use of a strip light over the majority of the enclosure, and a bulb-type spot light over the basking area. The day light cycle should be around 14 hours in the summer, 12 hours in the spring and fall, and 10 hours in the winter. Automatic timers are ideal for maintaining a regular light cycle. Water dragons require a minimum of eight hours of darkness at night for sleep. This should be taken in mind when locating the enclosure in your house. If the room has late night activities, even though the cage lights are off, if the room lights are on the reptile will remain awake.

Water dragons are mostly carnivorous although some will eat fresh fruits and vegetables if offered. Juveniles can be started on crickets and waxworms. Large juveniles will eat pinkie mice, large mealworms, and small fish. Adults will consume mice, chicks, fish and large invertebrates. Hatchling and juvenile water dragons should be supplemented with calcium daily and multivitamins twice a week. Adults will require less supplementation if

they are eating a varied diet of whole animals and receive direct, unfiltered sunlight.

Water dragons can be housed together provided you allow enough space for territorial behavior. Dominant males will prefer an area high in the branches to watch over the colony. Females will concentrate more on preferred digging areas. Dominant males and females will both engage in head bobbing to warn subordinate animals off their territory. Males will cause more harm to each other if fighting ensues, therefore, I recommend as few males as possible within any enclosure. Females will require less territory as long as there are ample digging sites within the enclosure. Subordinate females will repetitively wave their foreleg when confronted by a dominant female. This is a sign of acceptance that the reptile is the weaker of the two. Normally there is no territorial activity with regards to the water reservoir. All animals tend to accept the others existence in this area.

During the breeding season, the male will chase the chosen female around the enclosure, stopping occasionally to head bob. Eventually, the female will stop and the male will grasp her nuchal crest with his teeth. Copulation is usually completed within 30 minutes and the two will then separate. Midbody swelling and palpation of eggs should be obvious a few weeks later. Normal gestation for water dragons is between 50 and 60 days. Females will stop eating a few weeks prior to egg laying due to the lack of space within their abdominal cavity. This can be a critical time for any unhealthy female. Properly recording breeding dates to calculate egg laying is critical for early detection of egg retention. If unnoticed, prolonged egg retention can lead to starvation and death. The female will normally dig a nest within one week of egg laying. Oviposition duration depends on the number of eggs the female is carrying; normally this is completed within 30 minutes. Clutch sizes will vary but normally are between 10 to 12 eggs. Once completed, the female will cover the eggs with sand and crawl away.

Water dragon eggs require a higher humidity level than most other reptile eggs. The eggs themselves

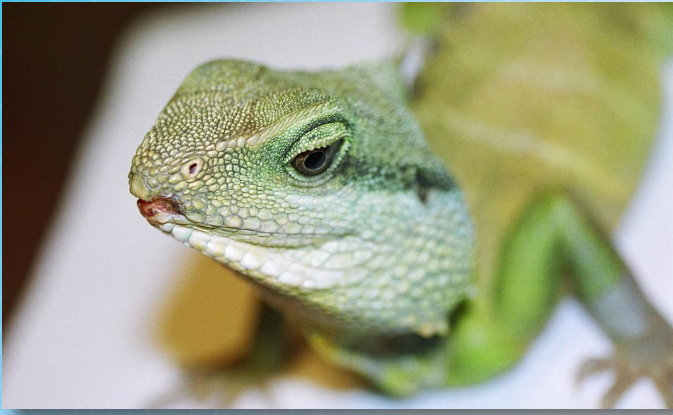


Figure 1 *P. cocincinus* with rostral abrasion



Figure 2 *P. lesuerii* with a bite wound on its leg

can be placed in a plastic container half submerged with a mixture of vermiculite and water at a ratio of one to one by weight. The eggs should then be covered with a one inch layer of sphagnum moss and soaked with misted water daily. The incubator should be prepared when the female starts digging to provide for stable temperature when the eggs are placed within. Incubation temperature should be 85 to 87 degrees Fahrenheit, and the humidity should be near 100%. These levels can be accomplished by placing the egg container in another container with water and an aquarium heater to warm the water. The egg box should not come in direct contact with the water reservoir.

Normal incubation time is between 65 and 70 days. The eggs will enlarge two to three times during development. Unless the eggs develop a fluffy white covering, they should be allowed to hatch. The hatchlings will be lighter green than the adults and will usually begin eating crickets within two to three days of hatching. They should remain in the

incubator for the first week, and then they can be moved to another enclosure for early development.

The most common health problems for water dragons are metabolic bone disease, rostral abrasions (Figure 1), and bite wounds (Figure 2). Metabolic bone disease is a syndrome in rapidly growing reptiles that are not provided adequate ultraviolet stimulation along with a diet poor in calcium. If left untreated this can result in a stunted or even crooked reptile that will eventually starve to death. This can easily be prevented with proper husbandry as well as medical attention from your veterinarian. Rostral abrasions occur when the dragon rubs its face, specifically the nose region along the inside of the enclosure. There are many causes for this to happen; the most common are stress, too small of an enclosure, and too much activity outside the enclosure. Rostral abrasions require medical attention and the affected reptile should be taken to the veterinarian for proper care. Additionally, changes will need to be made at home to prevent the problem from recurring. Bite wounds occur more frequently during the breeding season when multiple males are housed together, or when a female becomes unresponsive to a courting male. Bite wounds are a serious health issue and should always be treated quickly and aggressively to prevent extensive tissue damage.

