

## *Podocnemis unifilis* - (Yellow-spotted Amazon River Turtle) Care - Darrell

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### Taxonomic Journey: <sup>1</sup>

*Podocnemis unifilis* TROSCHER in SCHOMBURGK 1848: 647

*Emys cayennensis* SCHWEIGGER 1812: 298

*Emys Terecay* SCHINZ 1833 (fide PRITCHARD & TREBBAU 1984)

*Podocnemis unifilis* - KAHL et al. 1980: 117

*Podocnemis cayennensis* - DAVID 1994

*Podocnemis unifilis* - GORZULA & SEÑARIS 1999

Other common names: Tracaja, Terecay

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This care sheet is intended only to cover the general care of this species. Further research to best develop a maintenance and breeding plan for whichever species you are caring for is essential.

Many older turtle enthusiasts have fond memories from their childhood of going into dime stores such as SS Kresge (now Kmart) and FW Woolworths (now Footlocker) and looking at the turtles for sale. Along with the more common red ear sliders, map turtles and cooters a few other not so common species could be found. One of these other species was the Texas Tortoise which was sometimes seen for as little as five dollars apiece while another was a turtle with a nondescript slightly domed gray or brown shell and incredibly beautiful yellow markings on its head which gave its face a comical look. These were hatchling *Podocnemis unifilis*, a common sight in the "turtle tanks" of these dime stores. Importers that date back to those days speak of thousands upon thousands of these arriving in single shipments. Tens of thousands were sold in the mid to late 60s for as little as \$1.50 apiece retail. The knowledge of how to provide for turtles in those days was virtually non-existent. Coupling this with the difficulties in even identifying this species at that time, the results were that sadly nearly all of these dime store animals died. For different reasons, the stores that sold these also have died out over time.

There were no full spectrum lights or calcium supplements available then as there are today. In addition little in the way of books detailing care for any turtles were available, the internet did not exist and herpetological societies were few and far between. Food sold for turtles in those days consisted of dried flies and ant eggs. Alternate foods suggested were things like raw hamburger and cat food. As this species is highly vegetarian the result of such care was inevitable. Seeing a "Podoc" in a collection that dates back to those days is exceptionally rare indeed. The species



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became so rare in collections that other than the AZA North American Region studbook for South American River Turtles (Genus *Podocnemis*), which was published in 1992,<sup>2</sup> not much information is available on these animals even now. The massive shipments of these Yellow-spotted Amazon River Turtles ended with a CITES II designation in 1975 and placement of the species on the USA Endangered Species list. This put them under protection by the Endangered Species Act (ESA). As a Captive Bred Wildlife (CBW) permit is essential to purchase or sell these animals across state lines. This species is now occasionally available from captive born stock to those with the proper permits.

*Podocnemis unifilis* are found in Bolivia, Brazil, Colombia, Ecuador, French Guiana, Guyana, Peru, Suriname and Venezuela. Their care needs to reflect the tropical nature of their natural habitat. While they are often referred to as "river turtles" they tend to be found in slow moving water, oxbow ponds or lakes rather than the faster waters one normally thinks of when visualizing rivers. They can attain a huge size for an aquatic turtle potentially reaching 27 inches (68 cm) SCL. The average adult size however runs between 14 - 18 inches (35 - 45 cm) SCL. Because of the large adult size it is unfeasible to attempt to maintain adults in anything less than a pond or large artificial aquatic setting. Nesting can occur at any time of the year and typically 15 - 20 eggs are laid with a maximum of 40 being recorded<sup>2</sup>. Adult female turtles tend to be somewhat larger than the males.

#### HOUSING YOUNG YELLOW-SPOTTED RIVER TURTLES INDOORS

The most useful form of indoor accommodation for hatchling *Podocnemis unifilis* consists of an aquarium. For hatchlings I would suggest a water depth of 3 to 6 inches (7.5 to 15 cm) with one end built up with rocks to provide a completely dry basking spot. A reasonably sized aquarium for a hatchling is a 20 gallon "long": 30 inches by 12 inches, (75 cm by 30 cm). As the animal grows, the size of this habitat should be increased.

Water quality is extremely important. Many problems with aquatic turtles can be averted if one spends a little time and money designing and purchasing an adequate filtration system for your pets up front. Proper husbandry is a key component of preventative medicine. For adult *Podocnemis unifilis* we advise large ponds and oversized filters. Due to the shallow water preferences of hatchlings, providing good filtration is more difficult. For these, either a submersible foam filter or power filter and frequent water changes are the best solution.



In an indoor environment provisions must be made for basking with this species. In one corner of the environment a hardware store reflector clip light lamp should be positioned to provide an artificial basking area. This should be positioned to provide a basking temperature of 90 degrees F (32 degrees C) in that section of the habitat. The habitat should also be equipped with a full spectrum fluorescent light to provide for UVB. A UVB source is necessary for Vitamin D3

synthesis (essential for calcium metabolism). If preferred to this lighting arrangement a Mercury vapor bulb may be used that fulfills all heat and UV requirements. If using a mercury vapor bulb, make certain the lamp holder is ceramic as the heat generated by these can melt plastic fixtures. Also be sure that there is plenty of room for the animal to escape the high temperatures generated by these heat sources. Live or plastic aquatic plants are suggested to provide a sense of security and hiding places. Water temperature is not critical but should be maintained between 72 and 80 degrees F (22 - 27 C) as this species is tropical in nature.

#### OUTDOOR HOUSING:

Predator proof outdoor habitats offer many advantages over indoor accommodations and should be considered essential for adults of this species. Larger ponds with advanced filtration can be used to provide a truly spectacular outdoor home for your Yellow-spotted River turtles. As *Podocnemis unifilis* likes to sit on the bottom of a pond it should be deep enough to provide them with a sense of security while still allowing easy access to the surface to breathe, a depth of 24 - 30 inches is recommended for this. The pond should also contain an easily accessed basking log or platform for this species.

#### DIET:

Be careful not to over feed the Yellow-spotted River Turtle. I recommend only feeding 2 to 3 times a week for adult turtles and every day to every other day for rapidly growing hatchlings. This species will consume a wide variety of vegetables including greens such as mustard and turnip greens, dandelion, spinach, carrots, zucchini and any aquatic vegetation, i.e.. duckweed, water lettuce, water hyacinth, etc. They will also consume fruits such as peaches, apples, grapes and melon. Young turtles may take some insects and worms but this is not a large part of their normal diet. Many of the commercially prepared turtle diets and Koi foods that exist on the market today are excellent **supplemental** Yellow-spotted River turtle food.



Additional calcium supplementation is essential for this large rapidly growing species. Powdered calcium can be sprinkled all foods. Use calcium supplemented with vitamin D3 if the animal is being maintained indoors and calcium without D3 if it is outdoors. Provision of a cuttlefish bone, which can be gnawed if desired, is also recommended. As it is

difficult to ensure that powdered calcium will stay on the surface of food given to aquatic animals it is suggested that one make a high calcium gelatin supported mix to feed them containing proper foods and the needed supplements as proposed in the recipe below: While this should not be a majority of the diet, feeding this preparation once a week will do much to supply needed minerals and vitamins that may be lacking in the diet

This recipe can be altered to supply specific food items preferred by various species of aquatic turtle. More carnivorous species will require added meat products.

Finely chop the following:

16 ounces (453 grams) of chopped mixed greens (dandelion, endive, romaine, collards, turnip greens, escarole, grape leaves, mulberry leaves and forbs as available)

16 ounces (453 grams) of chopped available fruits and vegetables (squash, apples, pears, bananas, grapes, peaches etc.)

10 ounces (283 grams) of crushed Mazuri Tortoise Diet (Purina Mills, Inc) or equivalent. Use of this relieves the need for a multivitamin supplement.

add

1 ounce (28 grams) of phosphorus free, calcium reptile supplement (with D3 if animals are being maintained indoors) ("Rep-cal", manufactured by Rep-cal Research Labs, El Gato, CA, or equivalent)

Mix well

Prepare 3 ounce (84 grams) of Agar agar (seaweed based gelatin) with 3 liters of boiling water, remove from boil and add in the chopped food mixture, then pour the slurry into a shallow cake pan or pie tin and allow to set overnight in a refrigerator. If the resulting mixture is too loose, melt, add more agar and allow to reset.

Cut into cubes and freeze for storage prior to use.

If desired, red food coloring can be added to make the cubes more visually stimulating for the turtles.

#### **HIBERNATION:**

While this species does not hibernate in nature, it can tolerate subtropical winters outdoors. However, this should **not** be attempted in temperate areas.

#### **MEDICAL:**

The medical problems of this species are not unusual. As with all aquatic turtles vigilant care must be taken to watch for signs of respiratory distress as well as shell infections. As it is highly unlikely that legal wild caught specimens will be obtained, the more severe diseases often manifested in imported turtles will, in all likelihood, be avoided.

As an added incentive for obtaining strictly captive bred stock (besides the legal ramifications) it should be noted that in a study as a part of an environmental project aimed at raising *Podocnemis unifilis*, in the Goias State of Brazil a group of these animals were sacrificed during a research protocol. Ninety percent of these contained protozoans within the kidneys.<sup>3</sup>

It should be noted that turtle and tortoise care research is ongoing. As new information becomes available we share this on the World Chelonian Trust web site at [www.chelonia.org](http://www.chelonia.org). Serious keepers find it to be a benefit to have the support of others who keep these species. Care is

discussed in our free online email community, which may be joined from the web address above. Please contact us about the many benefits of becoming a member of the World Chelonian Trust.

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References:

<sup>1</sup>The EMBL Reptile Database <http://www.embl-heidelberg.de/~uetz/LivingReptiles.html>

<sup>2</sup> The Sedgwick County Zoo, Wichita, Kansas – species account  
<http://www.scz.org/animals/t/ysart.html>

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