Podocnemis unifilis (Yellow-headed Sideneck Turtle)

Family: Podocnemididae (Side-necked Turtles)
Order: Testudines (Turtles and Tortoises)
Class: Reptilia (Reptiles)

Fig. 1. Yellow-headed sideneck turtle, *Podocnemis unifilis*.

[http://www.cienciaguayana.com/2011/05/8-mil-tortuguillos-retornan-su-habitat.html, downloaded 31 October 2016]

TRAITS. *Podocnemis unifilis* is commonly known as the yellow-spotted sideneck turtle or the yellow-spotted river turtle. The upper region of the shell, known as the carapace, is usually a brown-black colour with a yellow-cream borders. The carapace has a ridge along the centre known as a keel. The plastron, which is the lower region of the shell, is yellow and occasionally has dark blotches. The adult male carapace varies in length from 21-39cm and width 19-34cm whereas the female carapace has a length of 38-52cm and a width of 33-45cm. The head is olive green to brown in colour with yellow spots which gives this turtle its name. The yellow spots are greatly seen in the juvenile *P. unifilis*; in the male turtles this characteristic remains throughout the individual's lifetime but in the female turtle as they mature into adults the yellow spots eventually fade. The head of *P. unifilis* is long with a distinct snout, and on the base of the chin there are usually single barbels, which are fleshy projections present in many aquatic vertebrates.

DISTRIBUTION. *Podocnemis unifilis* is primarily found in South America, including Guyana, Venezuela, eastern Colombia, and along the Amazon River in Brazil (Ferri, 2002). They are occasional accidental visitors to Trinidad, probably from the flooding Orinoco River.

HABITAT AND ECOLOGY. *P. unifilis* resides around calm waterways such as big rivers but migrates with the seasonal changes in water levels. When water levels are high *P. unifilis* are seen in swamps, lagoons and forests that are flooded; when water levels are low in the dry season they are found on riverbeds (FAO, 2004).

REPRODUCTION. The reproductive cycle of *P. unifilis* and the river's flood cycles are usually simultaneous as they lay their eggs on riverbanks during the dry season. Evidence indicated that *P. unifilis* can nest twice within the same individual reproductive cycle, but females would usually nest a single clutch per annum. The size of the clutch is dependent on the size of the female (Ushiñahua, 2006). *P. unifilis* lay their eggs along sandy beaches as well as soil beaches, along the banks of rivers and areas where plant matter such as leaves cover the floor (FAO, 2004). Two weeks after mating after the setting of the sun the females lay eggs in shallow nests allowing the eggs to incubate under the sun for the next two months until they hatch (Fig. 2). The temperature at which the eggs are incubated influences the sex and size of the hatchlings, as determined in a natural environment and within a lab (de Souza and Vogt, 1994).

BEHAVIOUR. *P. unifilis* are active during the mid-morning and afternoon peaks; they enjoy sunning together on fallen trees and other objects stationed in the center of the river and sometimes along riverbanks (Fig. 3). *P. unifilis* feed primarily on vegetation during high water levels that are found in the swamps, lagoons and flood forests. They also feed on various fruits and seeds in the flooded water but floating and plants on the riverbed form the basis of their diet and the fruits act as a supplement. Juveniles as well as mature *P. unifilis* also feed on live invertebrates such as worms and crickets (Gurley, 2005).

APPLIED BIOLOGY. *P. unifilis* are characterized as Vulnerable on the IUCN Red List (IUCN, 1982). The greatest threats to *P. unifilis* are the local people; turtles can be captured by hand during the dry season due to the low water levels (Fidenci, 2001). The demand for the meat and eggs of *P. unifilis* has increased over the years thus the number of poachers has increased (Woodland Park Zoo, 2008). The meat and eggs of *P. unifilis* are sold in local markets (Fig. 4).

REFERENCES

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Fig. 2. Hatchlings of *Podocnemis unifils*.

[https://www.greentracks.com/Facebook-Content/Amazon-River-Turtles.html, downloaded 31 October 2016]

Fig. 3. *Podocnemis unifilis* basking in the sun.

[http://www.raywilsonbirdphotography.co.uk/Galleries/Reptiles/Yellow-spotted%20River%20Turtle.html, downloaded 31 October 2016]

Fig. 4. *P. unifilis* eggs being sold in local market.

[http://www.naturepl.com/search/preview/eggs-of-yellow-spotted-amazon-river-turtle-podocnemis-unifilis-and-giant/0_01257455.html, downloaded 31 October 2016]