

Notes on the Diet of the Brown Wood Turtle, Rhinoclemmys annulata (Gray 1860), in the Humid Tropical Rainforest of Costa Rica

Jonathan Vega Coto

Biology Department, Lapa Verde Wildlife Refuge, Sarapiquí, Heredia, Costa Rica (johnyasper@gmail.com)

The Brown Wood Turtle (*Rhinoclemmys annulata*) is a medium-sized (~20 cm carapace length) terrestrial turtle that lives in humid tropical rainforest, specifically in lowland and foothill forests (Leenders 2019). Brown Wood Turtles occur in the Atlantic lowlands of eastern Honduras, Nicaragua, across eastern and western Panamá, and south into western Colombia and northern Ecuador at elevations from near sea level to 900 m asl (Carr et al. 2023). Brown Wood Turtles are diurnal and move most frequently during morning hours in forests, along stream banks, and in swamps foraging on the ground for plants and fruits (Savage 2002; Leenders 2019; Carr et al. 2023).

At 1000 h on 5 November 2023, I observed an adult Brown Wood Turtle in secondary forest at Lapa Verde Wildlife Refuge, Sarapiquí, Heredia, Costa Rica (10.468865, -84.052307), foraging for an hour while eating pepper plants



Figure 1. A Brown Wood Turtle (*Rhinoclemmys annulata*) feeding on Pepper Plants (*Piper* sp.) and Anthurium (*Anthurium* sp.) at Lapa Verde Wildlife Refuge, Sarapiquí, Costa Rica. Photograph by Jonathan Vega Coto.

(*Piper* sp.) and anthurium (*Anthurium* sp.) on the ground (Fig. 1). Specifically, the turtle was in a palm wetland swamp area largely dominated by Yolillo Palms (*Raphia taedigera*) (Bonilla-Murillo et al. 2013). It appeared to be trying to find the edges of leaves and often would bite the same leaf multiple times. The diet of the Brown Wood Turtle is known to consist of ferns, shrub seedlings, and lianas, suggesting that it could play a role in seed dispersal (Giraldo et al. 2013; Mittermeier 1971).

Although generally a rarely observed species, I observed five Brown Wood Turtles between February and November 2023 along trails in the forest of the Lapa Verde Wildlife Refuge. Activity was greatest in the morning from 0800–1200 h, especially when daytime temperatures were high (~34 °C) and conditions were drier after the wet season, likely due to the growth of ground vegetation during this time.

Literature Cited

Bonilla-Murillo, F., D. Beneyto, and M. Sasa. 2013. Anfibios y reptiles de los pantanos dominados por la palma de yolillo *Raphia taedigera* (Aracaceae) en el noreste de Costa Rica. *International Journal of Tropical Biology* 61: 143–161.

Carr, J. L., D. Moll, A. Giraldo, and M. F. Garcés-Restrepo. 2023. Rhinoclemmys annulata (Gray 1860) - Brown Wood Turtle, Montañero, Bambera. In: Conservation Biology of Freshwater Turtles and Tortoises: A Compilation Project of the IUCN/SSC Tortoise and Freshwater Turtle Specialist Group. A. G. J. Rhodin, J. B. Iverson, P. P. van Dijk, C. B. Stanford, E. V. Goode, K. A. Buhlmann and R. A. Mittermeier (Eds.). Chelonian Research Monographs 5: 123.1–16.

Giraldo, A., M.Garcés-Restrepo and J.L. Carr. 2013. *Rhinoclemmys annulata* (Gray 1860. Montañera, Bambera. *Catálogo de Anfibios y Reptiles de Colombia* 1(1): 31–34

Leenders, T. 2019. Reptiles of Costa Rica. A Field Guide. Zona Tropical Press, Cornell University Press, Comstock Publishing Associates, Ithaca, New York, USA.

Mittermeier, R. A. 1971. Notes on the behavior and ecology of *Rhinoclemys annulata* Gray. *Herpetologica* 27: 485–488.

Savage, J. 2002. The Amphibians and Reptiles of Costa Rica. A Herpetofauna between Two Continents, between Two Seas. The University of Chicago Press, Chicago, Illinois, USA.