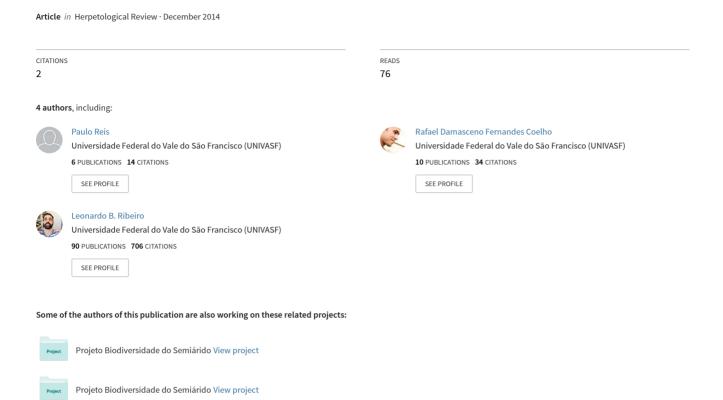
Mesoclemmys tuberculata (Tuberculate Toad-headed Turtle). Hatchlings



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MESOCLEMMYS TUBERCULATA (Tuberculate Toad-headed Turtle). HATCHLINGS. The chelid turtle Mesoclemmys tuberculata occurs in eastern Brazil, in the Rio São Francisco and adjacent drainages, recorded mainly in the Caatinga and at some localities in the Atlantic Forest and Cerrado; it is a medium-sized species that may reach a carapace length of 25-30 cm (Ernst and Barbour 1989. Turtles of the World. Smithsonian Inst. Press, Washington, DC. 313 pp.). This species is used as food and medicinal purposes by humans in this semi-arid region of Brazil (Alves et al. 2012. J. Ethnobiol. Ethnomed. 8:1-29).

On 8 November 2013, during a faunal rescue operation in conjunction with the Project of Integration of São Francisco river (PISF) within the basins of septentrional northeastern, we collected eight eggs belonging to an unidentified species of turtle. The eggs were found at the site of the future dam of the Jati Reservoir (7.703314°S, 39.008587°W), municipality of Jati, state of Ceará, Brazil. The local environment was a small dry area, where a tractor was clearing dense regrown vegetation. After we collected the eggs, the tractor cleared what was left of the area. Of the total of eight eggs collected, two remained intact and were placed in a folded tissue and sealed in a plastic bag for transport to the Laboratório de Morfofisiologia of the Núcleo de Ecologia Molecular (NECMOL) in the Centro de Conservação e Manejo de Fauna da Caatinga (CEMAFAUNA-CAATINGA). The eggs were then placed in a plastic container (2000 ml) on a substrate of vermiculite, and incubated at 27–30°C. Five months later, on 10 April 2014, two hatchlings emerged (Fig. 1). They were identified as M. tuberculata (Ernst and Barbour, op. cit.), and measurements were taken using a digital caliper (precision = 0.01 mm) and a precision balance (1 g).

The morphometric data for two hatchlings were: carapace length (CL1: 39.0 mm, CL2: 37.1 mm), carapace width (CW1: 25.8 mm, CW2: 25.5 mm), shell height (SH1: 14.0 mm, SH2: 13.4 mm), plastron length (PL1: 31.7 mm, PL2: 29.4 mm), plastron width (PW1: 21.2 mm, PW2: 20.0 mm), and body mass (BM1: 10.0 g, BM2: 8.8 g). Previously reported clutch size for M. tuberculata was 4-9 eggs (32×26 mm, 11.4-13.3 g), with a hatchling carapace length of 37 mm (Grossmann and Reimann 1991. Sauria 13:3-6), in general agreement with the present report.

The specimens of M. tuberculata (MFCH 3564–3565) were deposited in the Herpetological Collection of the Centro de Conservação e Manejo de Fauna da Caatinga (CEMAFAUNA-Caatinga/UNIVASF), Petrolina, Pernambuco, Brazil. We thank



Fig. 1. Lateral view of the carapace (left) and plastron view (right) of a hatchling Mesoclemmys tuberculata (carapace length 39.0 mm, plastron length 31.7 mm). Note the two chin barbels and the remains of the yolk sac on the plastron.

the Ministério da Integração Nacional for financial support. IBAMA provided the collecting permit (#95/2012 Process n° 02001.003718/94-54).

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PODOCNEMIS UNIFILIS (Yellow Spotted Amazon River Turtle). PREDATION. Podocnemis unifilis, like other large river turtles, is characterized by having delayed maturity and low natural adult mortality, with a much higher mortality of eggs and hatchlings, which are reported to be preyed upon by vultures (Coragyps atratus and Cathartes aura), Carcará (Polyborus plancus), Jaburu (Jabiru mycteria), tegus (Tupinambis teguixin), Coati (Nasua nasua), and a mustelid (Cerdocyon thous) (Salera Junior et al. 2009. Acta Amazonica 39:207-214). These authors also reported Black Caiman (Melanosuchus niger), Jaguar (Panthera onca), and Cougar (Puma concolor) preying on females during the nesting season on the Javaes River, Tocantins, Brazil. The Jaguar and Cougar consumed the turtles at the nesting beach but it was impossible to determine from their paper if the caiman predation took place on land or in the water. Soares (2000. MS thesis. INPA, Manaus) on the Rio Guapore, Rondônia, Brazil, Emmons (1989. J. Herpetol. 23:311-314) on the Arataye River, French Guiana, and Hildebrand et al. (1997. La Tortuga Charapa [Podocnemis expansa] en el Río Caquetá, Amazonas, Colombia: Aspectos de su Biología Reproductiva y Técnicas para su Manejo. Disloque Editores, Ltda., Santafé de Bogotá. 152 pp.) on the Caqueta River, Amazonas, Colombia, all reported Panthera onca and Pa. concolor consuming nesting P. unfilis and P. expansa.

The 385,000-ha Rio Trombetas Biological Reserve (1.25°S, 56.83333°W; WGS84) is located in the Municipality of Oriximiná, Pará State, Brazil. During the dry season, sand beaches are exposed as the water level of the river recedes, providing nesting areas for Podocnemis expansa, P. unifilis, and P. sextuberculata. This is the first documentation of a female Podocnemis unifilis apparently leaving the water in an attempt to escape predation by a Black Caiman (Melanosuchus niger) in the Trombetas Reserve. At 0840 h on 11 October 2013, during nesting surveys we observed the deep tracks and body drag of a Black Caiman where it had lunged out of the water making a 6-cm deep impression in the wet sand, and 4-cm deep tracks, suggesting a running gait. A turtle was captured within 2 m of the shore line, as evidenced by turmoil in the sand, fresh blood, and egg shells and yolk splattered in a 1.5-m diameter area; only one fragment of the 9th-10th right marginal scute of the turtle remained on the beach. From this carapace fragment, the egg shells, and the tracks, the turtle was identified as P. unifilis (Fig 1. A-C). Based on the tracks of the turtle, we believe it was not nesting, nor did it appear to be walking at a leisurely pace looking for a nest site, but rather was running in an attempt to escape predation.

Financial and logistical support for the study were provided by Projeto Tartarugas da Amazônia and REBIO Trombetas (ICMBio), CNPq provided a scholorship for F. A. G. Cunha. This research was authorized by permit N°40084-3/2013 ICMBio.