

RESCUE ACTIONS OF THE 'BLACK TURTLE' *MELANOCHELYS TRIJUGA THERMALIS* (REPTILIA: BATAGURIDAE) FROM SRI LANKA

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Abstract: *Melanochelys trijuga* is a medium-sized turtle from Sri Lanka that inhabits a variety of freshwater habitats. Most active at night, sunrise or sunset, this turtle lives in burrows during the day. We document two rescue operations of *M. t. thermalis* performed in 2007 and 2008 in the Eastern province for turtles fell into and become trapped in hand-dug wells. Their body weight had decreased due to dehydration and starvation. Being these turtles part of one of the most endangered groups of vertebrates in the world, we recommend keeping and feeding rescued specimens for a few days after rescue to avoid being eaten by potential predators. We also recommend workshops and lectures being conducted to raise public awareness about the importance of these animals.

Key words: Testudines, Cryptodira, Sri Lanka black turtle, Eastern province, freshwater turtle, South Asia, conservation.

Resumen: D.M.S.S. Karunaratna y A.A.T. Amarasinghe. "Acciones de rescate de la 'Tortuga Negra' *Melanochelys trijuga thermalis* (Reptilia: Bataguridae) en Sri Lanka". *Melanochelys trijuga* es una tortuga de agua dulce de Sri Lanka de tamaño mediano que vive en una variedad de hábitats dulceacuicolas. Mayormente activa en la noche, alba u ocaso, esta tortuga vive en madrigueras durante el día. Documentamos dos operaciones de rescate de *M. t. thermalis* llevadas a cabo en 2007 y 2008 en la provincia Eastern para tortugas caídas y atrapadas en pozos excavados a mano. Sus pesos corporales habían disminuido debido a la deshidratación e inanición. Siendo estas tortugas parte de uno de los grupos de vertebrados más amenazados en el mundo, recomendamos mantener y alimentar los animales rescatados por unos pocos días después del rescate para evitar que ellos sean comidos por depredadores potenciales. También recomendamos conducir talleres de trabajo y dar charlas para crear conciencia sobre la importancia de estos animales.

Palabras clave: Testudines, Cryptodira, Tortuga negra de Sri Lanka, Eastern province, galapago, Sur Asia, conservación.

INTRODUCTION

In Sri Lanka, there are nine Testudines belonging to two groups: marine turtles (5 species) and inland turtles (4 species) (Das and De Silva 2005, Deraniyagala 1953). One of these, *Trachemys scripta* (Red-eared Slider), has been introduced through the pet trade (in the early 1990's) and is a well-known alien invasive species. The widespread but threatened *Melanochelys trijuga* (Schweigger, 1812)(Fig. 1) has been protected since 1972 under the provisions of the Fauna and Flora Protection Ordinance (IUCN-SL 2000). In Sri Lanka this species is represented by two sub-species; namely, *M. t. parkeri* (Deraniyagala, 1939) and *M. t. thermalis* (Lesson, 1830). It is known as "Gâl ibbâ" = (Rock + turtle) in the Sinhala language and it grows to over one foot in length (Deraniyagala 1930). It occurs across South Asia, and its distribution in Sri Lanka ranges from dry-zone to wet-zone water sources (Das 1991). Here we document two unusual instances of rescuing *M. t. thermalis*, presumably from circumstances that would have resulted in their death. Both instances occurred in the Eastern province of Sri Lanka.

THE RESCUING OPERATIONS

Observations were made on 15 November 2007 in the Awaram Pokuna Area, Panama at 14:00h and on 30 April 2008 in the Periya Kalapu area, Thirukkivil at 14:30h. We observed One adult male, and one adult female with two adult males respectively, having fallen into and become trapped in hand-dug wells. The wells, both 1.5 m deep and 1 m in diameter (Fig. 2), were dug to distribute fresh water for the Casuarina belt grown as a result of the tsunami incident in 2004. However, these wells were not maintained after the plants were fully grown. These wells were not refilled after fulfilling their purpose. The turtles had fallen into these wells at least 10 days prior to their rescue (according to personal communication with local people) and their body weight had decreased due to dehydration and starvation. While being rescued, all of the turtles were motionless (Fig. 3). The rescued turtles were 22–31 cm in carapace diameter. The carapaces appeared dehydrated due to exposure to intense sunlight.

The turtles were released to nearby freshwater ponds soon after their rescue; however, none of them could immediately dive,

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FIG. 1. Mature male of *Melanochelys trijuga thermalis* in Ampara, Sri Lanka.

Macho adulto de Melanochelys trijuga thermalis en Ampara, Sri Lanka.



FIG. 2. Three specimens of *Melanochelys trijuga thermalis* fallen into a dug well at Periya Kalapu, Sri Lanka.

Tres ejemplares de Melanochelys trijuga thermalis caídos en un pozo excavado en Periya Kalapu, Sri Lanka.

presumably due to the combination of dehydration, decreased body weight, and exhaustion. Because turtles and tortoises are among the most endangered groups of vertebrates in the world, we would recommend keeping and feeding rescued turtles for a few days after rescue, otherwise they may easily become prey to Jackals (*Canis aureus*), domestic dogs (*C. familiaris*), Mongooses (*Herpestes* sp.), crocodiles (*Crocodylus* sp.), monitor lizards (*Varanus* sp.) as well as humans (*Homo sapiens*). Unfortunately, we were unable to keep these animals for treatment due to the rules and regulations of the Department of Wildlife Conservation (DWC) of Sri Lanka. According to Tuberville *et al.* (2005) free-ranging animal populations have significantly higher fitness (survival) and toleration levels than the captive bred animals, neither source population nor genetic background significantly influencing survival.

The villagers inhabiting these areas seem to be consuming

turtle flesh (Fig. 4) even though keeping a turtle, killing a turtle or keeping the meat of a turtle are all prohibited under the Fauna and Flora Protection Ordinance (De Silva 1996). According to Das and Bhupathy (2009) *Melanochelys trijuga thermalis* has no immediate danger in India although it is exploited in unknown numbers for food. Population declines have been reported from Sri Lanka, where turtle flesh is most popular and frequently eaten. Regrettably, neither the Department of Wildlife Conservation nor the police have taken the necessary actions to stop these illegal activities. In addition, we also saw many examples of wetland filling and encroachments (entry to the government lands without right or permission) during our visits to the Eastern province. We recommend conducting workshops and lectures for school children and the general public to raise awareness of the value of these significant animals and to encourage the refilling of wells after use. In these ways we can help to conserve long-living turtles (Gibbons 1987).

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FIG. 3. Rescued *Melanochelys trijuga thermalis* at Thirukkivil, Sri Lanka. *Melanochelys trijuga thermalis rescatada en Thirukkivil, Sri Lanka.*



FIG. 4. Evidence that villagers from Periya Kalapu area, Sri Lanka, have used the turtle flesh for food.

Evidencia de que los pobladores de Periya Kalapu area, Sri Lanka, han usado la carne de tortuga para alimentación.

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