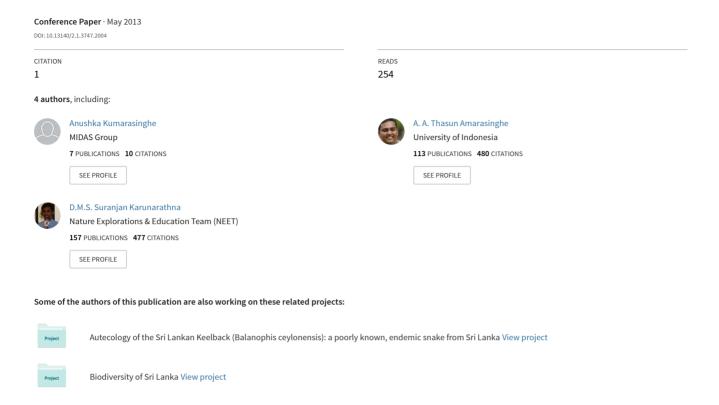
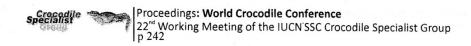
Current conservation status of Crocodylus porosus from Borupana Ela and its hinterlands in Moratuwa, Sri Lanka





Current conservation status of *Crocodylus porosus* from Borupana Ela and its hinterlands in Moratuwa, Sri Lanka

M.B. Madawala¹, A. Kumarasinghe¹, A.A.T. Amarasinghe² and D.M.S.S. Karunarathna¹

Young Zoologists' Association of Sri Lanka, Department of National Zoological Gardens, Dehiwala 10350, Sri Lanka | Komunitas Konservasi Alam Tanah Timur, Jl. Kuricang 18 Gd.9 No.47, Bintaro Jaya sector 3A, Tangerang 15412, Indonesia

Crocodylus porosus (CP) is the largest reptile species distributed in the coastal belt and its environs of Sri Lanka. This species is categorized as Lower Risk/Least Concern (version 2.3) under the IUCN Global Red List, and Endangered (B2ab iii) in the 2012 National Red List of Sri Lanka. Despite it being locally common in some regions in the island, data on general behavior, feeding and reproductive habits and also the genetic and morphological variation within the species in Sri Lanka is not well known. The data in this abstract are based on opportunistic field observations made by the authors for 37 days (~6 hrs/ day) from February 2012 to March 2013 in Borupana (Kospelana Bridge to Borupana Bridge). This study area covers less than 1000 hectares and falls within the western province (647'39.72" to 650'17.26" N and 7953'09.00"to 7954'48.31"E), at an elevation of 1-2 m above sea level. Surveys were conducted both during day and night and flashlights were used at night. Specimens accidentally caught in fishing nets were also examined. Whenever possible specimens were taken from fishermen to determine their sex, weight and obtain measurements and released at the same habitat. We also interviewed villagers using a written questionnaire. Furthermore basic environmental parameters were collected at locations, where specimens were collected.

During the survey we were able to record a total of 41 individuals (29 through fisheries by-catches and 12 direct observations). Out of the 29 specimens, eight were killed by fishermen for consumption. These individuals ranged from 14-180 cm (SVL) and weighed 0.08-53 kg. According to questionnaire surveys administered on villagers between 21 to 60 years in age (n=84), 96% of them believed that CP have no importance and should be killed; 89% has killed at least one CP in Borupana; 74% has eaten CP meat and 45% has eaten CP eggs. Contrastingly, among villagers below 20 years in age (n=53), 81% believed CP to be of importance thus should not kill; 86% not killed even a single CP in Borupana; 82% not eaten CP meat and 88% not eaten CP eggs as additional food source.

Borupana is a local 'Hot Spot' for CP and there is a healthy population in different size classes and good habitat for nesting. But few threats were noted: Karadiyana massive garbage dumping area is close to this site (potentially emitting toxic chemicals to the water), and several industrial factories dump their waste to Borupana Ela (7.2 to 7.9 ph level). Water temperature at ~30cm depth fluctuates between 29.3 to 30.8 C at night time and between 30.1 to 31.6 C during day time. Three fatal attacks from CP have been recorded from the area over the last ten years and eight other attacks have taken place. Five large individuals were removed from this location and translocation to Bundala, Yala and Lunugamwehera areas, which are inhabited by muggers. Education and awareness workshops for the villagers were also conducted over the last year.