

## **Present status of sea turtle hatcheries situated along the coastal belt of the West and Southwest of Sri Lanka**

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Collection of sea turtle eggs from the rookeries for human consumption and marketing eggs to the sea turtle hatcheries have been identified as major threats to the marine turtles in Sri Lanka. Normally, hatcheries receive the turtle eggs from the surrounding beaches, for *ex-situ* conservation activities and these eggs are reburied within the turtle hatcheries for incubation. Therefore, objectives of the present study were to assess the sea turtle hatcheries and to investigate the status of the sea turtle nesting beaches adjacent to the hatcheries. The study area was extended from the coastal stretch in two administrative districts, Colombo (Mount Lavinia to Rathmalana) and Galle (Benthota to Koggala). The information such as nesting beaches, sea turtle species, name of the egg collector, number of eggs buried, and date of eggs buried were collected from the each hatchery through data sheets. At the same time, direct observations were made by NARA research staff from January 2014 to December 2015. Totally fifteen operational sea turtle hatcheries were identified along the study areas. During the study period number of 208,053 (68.7%) green turtle eggs, 90,695 (30%) olive ridley turtle eggs, 1,442 (0.5%) hawksbill turtle eggs, 1,516 (0.5%) loggerhead turtle eggs and 1,010 (0.3%) leatherback turtle eggs were reburied inside the hatcheries. The maximum numbers of eggs reburied were reported during the period of December to May in each year. In addition relatively low numbers of eggs were reburied from June to October and the period of less number of eggs reburied was coincided with south-west monsoon. Furthermore, a total number of 3,354 nesting and 368,835 number of eggs production were estimated in the study area. Around 82% of the total number of eggs was incubated under the hatchery conditions. The study revealed that the practices in egg collection, transportation, and reburying, rearing and releasing hatchlings comprise considerable negative impacts on the survival of the wild turtle stocks. Also, inappropriate rotations and movements of eggs may cause damages to the development of embryonic membranes and change the natural sex ratio. Capacity building of interested parties through proper trainings in each activity is needed to minimize the mortality rates and other negative impacts on wild marine turtles.

Keywords: *ex-situ* conservation, in-situ nest protection, reburied, nesting, sea turtle hatchery

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