

- loggerhead turtles in Sri Lanka.
6. Vulnerability to marine debris.
 7. Unclear status and trend of the loggerhead turtle population in the north-west Indian Ocean.

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A SUMMARY OF THE LEATHERBACK TURTLE RED LIST ASSESSMENTS IN THE INDIAN OCEAN

ANDREA D. PHILLOTT

Biological Sciences, Asian University for Women, Chittagong, Bangladesh

andrea.phillott@auw.edu.bd

A summary based on:

Tiwari, M., Wallace, B.P. & Girondot, M. 2013. *Dermochelys coriacea* (Northeast Indian Ocean subpopulation). In: IUCN 2013. IUCN Red List of Threatened Species. Version 2013.2. www.iucnredlist.org.

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The appropriateness of global listings on the IUCN Red List of Threatened Species has long been debated by sea turtle biologists and conservationists (Groombridge & Luxmoore, 1989; Mrosovsky, 2003; Godfrey and Godley, 2008), with concerns that variations in population size and dynamics, geographic range, and subpopulation conservation status (including risk of extinction) were not adequately assessed. To address these concerns, the most recent Red List assessment for the leatherback turtle now includes both global and sub-population listings.

The global Red List status of leatherback turtles is 'Vulnerable', with fisheries by-catch posing the greatest

threat. Other threats include human consumption of eggs and meat, and coastal development; there are insufficient data to gauge the threats posed by pollution and pathogens, and climate change to all subpopulations. The Southwest Indian Ocean, Southwest Atlantic, East Pacific and West Pacific subpopulations are listed as 'Critically Endangered', Northwest Atlantic populations as 'Least Concern', and Northeast Indian Ocean and Southeast Atlantic subpopulations as 'Data Deficient' (Wallace *et al.*, 2013a).

Nearly 99% of the global leatherback population is expected to comprise turtles from the large, and increasing, Northwest Atlantic subpopulation by 2040. It is, therefore, essential that population growth of this subpopulation be sustained. However, conservation efforts to protect leatherback turtles and habitats in the Indian Ocean and other regions are equally as important in light of the significant threats to all subpopulations and the historical collapse of large Pacific subpopulations (Wallace *et al.*, 2013a).

The Southwest Indian Ocean subpopulation of leatherback turtles in KwaZulu Natal, South Africa and Mozambique is small and geographically constrained. The size estimate is 148 adult turtles, with indications of a small but continuing decline (Wallace *et al.*, 2013b). Major threats to the population include fisheries by-catch

(Wallace *et al.*, 2011; Nel, 2012), although this must be quantified, and harvest of eggs and meat in Mozambique (Nel, 2012). For further information on this leatherback subpopulation, see also Lombard and Kyle (2010), Nel (2010; 2012) and Nel *et al.* (2013).

The Northeast Indian Ocean subpopulation of the Andaman and Nicobar Islands, India, and Sri Lanka is listed as Data Deficient (Tiwari *et al.*, 2013). A long term monitoring programme on Great Nicobar Island was terminated after the December 2004 tsunami (Andrews *et al.*, 2006), and has been resumed on Little Andaman Island only since 2007 (Swaminathan *et al.*, 2013). Consistent survey effort over more nesting seasons is required to determine population size and dynamics, and further surveys to measure geographic range. Similarly, insufficient information is available to identify and quantify major threats, although depredation of eggs is believed to be high. Published studies on these turtles include Andrews *et al.* (2006), Hamann *et al.* (2006), Namboothri *et al.* (2012), Swaminathan *et al.* (2011), Swaminathan *et al.* (2013) and Nel (2012).

In summary, the key knowledge gaps for leatherback turtles in the Indian Ocean include:

1. Quantified mortality rates of fisheries by-catch.
2. Continuous, long-term datasets with consistent monitoring for the Northeast Indian Ocean subpopulation.
3. Knowledge of geographic boundaries of the Northeast Indian Ocean subpopulation.
4. Estimates of leatherback egg and meat harvest and depredation.

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PHOTO OF INTEREST



Unknown Turtle Tag

A hawksbill turtle with an unreadable carapace tag was photographed at Valla Lhoi, Dhaalu Atoll in the Maldives. Observers would like to know who is using this type of tag and, if possible the origin of the turtle. Please email Agnese Mancini of IUCN Maldives Marine Projects (agnese.mancini01@gmail.com) if you have any information.

Photo credit: Judith Hannak