



NOAA Technical Memorandum NMFS-SEFSC-631

PROCEEDINGS OF THE THIRTY-FIRST ANNUAL SYMPOSIUM ON SEA TURTLE BIOLOGY AND CONSERVATION



10 to 16 April 2011
San Diego, California, USA

Compiled by:
T. Todd Jones & Bryan P. Wallace

U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NOAA Fisheries Service
Southeast Fisheries Science Center
75 Virginia Beach Drive
Miami, Florida 33149

May 2012
(Updated November 2012)



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DON'T LEAVE THE NESTS ALONE!: A CASE STUDY IN ALAS PURWO NATIONAL PARK, EAST JAVA, INDONESIA

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The role and effectiveness of hatcheries as a sea turtle conservation tool have been debated for some time due to some emerging problems such as inconsistency of hatching rate, effects on the gene pool, lost genetic diversity, and skewed sex ratios. It has been suggested by other studies that the hatchery should only be used for nests at risk in the natural environment. Egg relocation to the hatchery has been routinely carried out in Alas Purwo National Park (East Java, Indonesia) since 1983. This study aims to provide an evaluation of the on-going hatchery practices in the Park through an examination of predation on olive ridley turtle (*Lepidochelys olivacea*) nests. Nests found in natural habitat were randomly allocated into treatment (surrounding by a predator-proof cage) and control nests. An iButton data logger was placed 40 cm depth in the centre of each nest to measure temperatures and all nests were checked daily for predator incursion. The presence of predators on the nesting beach was monitored by passive soil plots (2 x 3 m) every 500 m along the beach. In 2010, camera traps were set to record the predator activity around selected nests. Beach temperatures in each year were also measured by employing iButtons in four different areas of the beach. Over two nesting seasons (2009 and 2010) the tracks of the little civet (*Viverricula indica*), palm civet (*Arctogalidia trivirgata*), wild pig (*Sus scrofa*), and monitor lizard (*Varanus salvator*) were found on the beach. Monitor lizard's tracks were the most commonly found in both years and both caged and non-caged nests were mostly raided by monitors. The predation rates of caged and uncaged nests were 100% for both years (N=11 nests in 2009 and N= 19 nests in 2010). Due to logistical considerations, only 2010 data were used in predator survey. The monitor lizards were widely distributed along the beach and more abundant compared to other predators. But they were relatively more abundant in the eastern beach (mean daily tracks in eastern beach: 3.8±0.4; in western beach: 2.79±0.9). The method of protection by using wire cage is ineffective in preventing egg predation by the major nest predators occurring in Alas Purwo due to high costs in materials and labour as well as being impractical to deploy on such a long nesting beach. The beach temperatures in both years were generally high ranging from around 25° C to almost 36° C during the nesting season. Therefore, the current hatchery practices through egg relocation to the hatchery can be justified as the main conservation tool.

INTERESTING HABITAT AND BEHAVIOR OF OLIVE RIDLEY SEA TURTLES: IMPLICATIONS FOR WEST AFRICAN SEA TURTLE CONSERVATION*

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Movements of the Atlantic olive ridley (*Lepidochelys olivacea*) population have never been studied, despite strong political will to protect this species in Gabon and other West African nations. Mayumba National Park (MNP) in Gabon is a 900 km² marine reserve along the Gabon-Republic of Congo border designed to protect nesting populations