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



## 2014 INTERNATIONAL SEA TURTLE SYMPOSIUM

✿ NEW ORLEANS, LOUISIANA, USA ✿

14 to 17 April, 2014  
New Orleans, Louisiana USA

Compiled by:

Lisa Belskis, Amy Frey, Michael Jensen, Robin LeRoux, and Kelly Stewart

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

December 2016

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December 2016

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## TABLE OF CONTENTS

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Page #	
	PRESIDENT’S REPORT.....iv
	COMMITTEES, ORGANIZERS AND BOARD OF DIRECTORS.....vi
	SPONSORS AND CONTRIBUTORS.....viii
	STUDENT AWARDS.....ix
	ISTS AWARDS 2014.....xi
	SPECIAL FEATURES.....xi
	WORKSHOPS.....xi
	ABSTRACTS
	Opening Remarks and Keynotes.....1
	Anatomy, Physiology and Health.....4
	Collaborative Fisheries Research and Mitigating Marine Turtle Bycatch: Special Session.....40
	Conservation, Management and Policy.....43
	Education, Outreach and Advocacy.....77
	Fisheries and Threats.....91
	Genetics and Population Biology.....117
	In-Water Biology.....144
	Nesting Biology.....189
	Research Highlights from Southeast U.S.A.....221
	Sea Turtle Biology and Conservation in the Gulf of Mexico: Special Session.....230
	Social, Economic and Cultural Studies.....241
	Video Presentations.....250
	Author Index.....253

Abstract titles marked with an \* at the end of the title denote an Oral Presentation.

**FACTORS AFFECTING LEATHERBACK TURTLE HATCHLING PRODUCTION AT JAMURSB  
MEDI AND WERMON BEACHES, BIRD'S HEAD PAPUA BARAT – INDONESIA**

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The Pacific leatherback sea turtle is a “Critically Endangered” species that has experienced a long-term decline over past decades. The largest nesting aggregation of leatherbacks in the Pacific occurs on Bird’s Head peninsula, Papua Barat, Indonesia, and represents the largest producer of hatchlings for the entire Pacific. The adult females as well as hatchlings disperse widely to various areas of the Pacific. The impact of a number of biotic and environmental factors on leatherback nests and hatchling production were quantified at the two primary nesting beaches: Jamursba Medi and Wermon, from 2005 to 2012. The primary threats impacting nests were predation, tidal inundation and erosion, and extreme beach temperatures, all of which significantly affected nest survival, hatching success, and subsequent hatchling production. The minor threats impacting nests were opportunistic poaching, predation by monitor lizards, sand crabs, and root invasions. We estimated an average of 34,364±7,579 hatchlings produced during the boreal summer nesting seasons at Jamursba Medi, and 10,469±6,278 hatchlings produced during the austral summer nesting seasons at Wermon. The results indicated that low levels of nest survival and hatching success represents one of the primary factors causing the decline of western Pacific leatherback at Bird’s Head. As such, the low level of hatchling production will necessitate the development and implementation of effective conservation measures that significantly increase hatchlings production on these beaches. The development of a beach management plan to address these threats is a critical to the recovery of the Pacific leatherbacks. I sincerely thank OneWorldOneOcean Foundation and Biology Department–University of Alabama at Birmingham (UAB) for their generous supports to fund my participation in the Symposium. I also thank the International Sea Turtle Symposium, International Sea Turtle Society, U.S. Fish and Wildlife Service, and U.S. National Marine Fisheries Service for supporting my participation in the Symposium.

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**FACTORS THAT INFLUENCED NESTING BEACH SELECTION BY GREEN TURTLES (*CHELONIA MYDAS*) IN VAMIZI, MOZAMBIQUE, BETWEEN 2003 AND 2012\***

**Joana C. Trindade<sup>1,2</sup>, Rui Rebelo<sup>1,2</sup>, Almeida Guissamulo<sup>3</sup>, and Isabel M. da Silva<sup>4</sup>**

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The identification of the possible clues that drive nest site selection has received considerable attention. Sea turtles are likely to use multiple environmental factors when selecting a nest site. However, the clues that attract nesting females to a specific location of nest placement remain speculative. One method of investigating possible clues used in nest-site selection is to document the spatial pattern of nests in relation to a naturally occurring range of beach conditions. The main goal of this work was to identify the factors influencing nest site selection by green turtles (*Chelonia mydas* L. 1758) in Vamizi, Quirimbas Archipelago, Mozambique, in 2012, 2003-2008 and 2011. The distribution of the nests through the various beach sections was not uniform for any of the years analyzed. Furthermore, there was a change in the distribution pattern of the preferred beaches: Comissete started to be less visited in 2006 and 2007, and Farol and Pangaio started having more nests in 2007 and 2008. This uneven distribution allowed for the identification of three different groups of beaches: Comissete, Soweto+Farol and Pangaio+Munto Nkulo. The change

- Sánchez Jiménez, Astrid, 71, 178  
Sánchez, Alberto, 182  
Sánchez, Astrid, 44  
Sánchez, Carla, 73, 212  
Sanchez, Salvador, 76, 87, 123  
Sanchez, Ynes S., 72  
Sánchez-Zazueta, Jorge G., 246  
Sandoval, Sarahi, 213  
Sanghera, Amdeep, 69, 175  
Santiago-Magallanes, Sancy, 70  
Santidrian Tomillo, Pilar, 102, 150, 197, 214, 217  
Santos, Alexsandro, 203  
Santos, Armando JB, 203  
Santos, Katherine Comer, 49, 104  
Saracho, Fernando E., 248  
Sarmiento Ramírez, Melissa, 24  
Sarmiento-Devia, Ricardo, 140  
Sartain, Autumn R., 234, 239  
Sarti Martinez, Laura, 230, 231  
Sasso, Christopher R., 133, 222  
Sato, Katsufumi, 149  
Sawaf, Moaz, 77, 172  
Scarola, Joseph C., 227  
Schaf, Susan A., 91, 112  
Schaffler, Jason, 32  
Schembri, Blake, 66  
Schilling, Alexandra J., 149  
Schmid, Jeffrey R., 29, 147, 178  
Schmid, Jill L., 214  
Schofield, Gail, 106  
Scholl, Joshua, 179  
Schroeder, Barbara A., 21, 91, 100, 133, 147, 154, 230, 231  
Schutes, Allison M., 63, 88  
Schwenter, Jeffrey A., 4, 138, 144  
Schwoerer, Monette, 192  
Secchi, Eduardo R., 121, 130  
Segars, Al, 154  
Selangi, Moby, 230  
Selby, Thomas H., 180  
Seminoff, Jeffrey A., 4, 29, 37, 112, 122, 127, 139, 160, 166, 171, 173, 184  
Senko, Jesse, 109, 112  
Sezgin, Çisem, 22, 58, 215  
Shakya, Anjali, 37  
Shamblin, Brian M., 140, 143  
Shannon, Delphine, 22, 223  
Shaver, Donna J., 235, 239  
Shimada, Takahiro, 180  
Sho, Celso, 66  
Shockey, David I., 109  
Shore, Teri, 113  
Shrake Perry, Lisa, 84  
Shudes, Karen, 73  
Shultz, Kathy, 252  
Sibaja Garcia, Gabriel, 191  
Siciliano, Salvatore, 137  
Sifuentes-Romero, Itzel, 20, 215  
Silva, Andrine P., 130  
Slotkin, Mike, 245  
Smelker, Kimberly D., 38  
Smith, Alexandra, 40  
Snover, Melissa L., 5  
Soares, Luciano S., 181  
Solangi, Moby, 22, 107  
Solarin, Boluwaji B., 107, 114  
Solis, S., 17  
Solomona, Penina, 62  
Sosa-Cornejo, Ingmar, 74, 246  
Southwood, Amanda, 35  
Souza, Ângela T. S., 4  
Sozbilen, Dogan, 22, 33, 58  
Spagnoli, Christopher A., 114  
Sposato, Patricia L., 34  
Spotila, James R., 108, 111, 197, 206, 207, 214  
Squires, Dale, 245  
Stacy, Brian, 21, 91, 154  
Stacy, Nicole L., 26, 33  
Stadler, Melanie, 212  
Stamatiou, Anna, 252  
Stamper, Andrew, 6  
Stapleton, Seth P., 201, 210  
Steiner, Todd, 74, 113, 122  
Steinhaus, Joanie, 74  
Sterling, Eleanor J., 19, 23  
Sternner, Andrew T., 228  
Stevens, April, 216  
Stewart, Kelly R., 135, 141  
Stewart, Theresa M., 75  
Stokes, Lesley, 126  
Stringell, Thomas B., 175  
Su, Melany, 248  
Suganuma, Hiroyuki, 60  
Summers, Marcy, 89  
Sung, Kyungje, 115  
Suprapti, Dwi, 99  
Surucu, Bahattin, 216  
Sutton, Stephen, 57  
Swidan, Nadia, 77  
Swiggs, Jennifer, 217  
Swimmer, Yonat, 35, 160, 166  
Swingle, W. Mark, 145  
Tagliolatto, Alícia B., 35, 157  
Talavera, Ana L., 182  
Tamata, Laitia, 62, 182  
Tapilatu, Ricardo F., 218  
Tappen, Marshall, 192  
Taylor, Ginger, 88  
Taylor, Scott, 31  
Teas, Wendy, 92  
Techera, Bruno Nicolas, 168  
Tejedor, Ana, 35