

2005-Award Summaries

A total of \$260,673.81 will be distributed for the 2005 Protect Wild Dolphin competition. Six (6) awards were made; 14 proposals were received.

Principal Investigators and Co-PI's: Deborah Fauquier (dfauquier@mote.org), Spenser Fire (sfire@mote.org), Richard Pierce (rich@mote.org), and Randall Wells (rwells@mote.org) Mote Marine Laboratory; Leanne Flewelling (Leanne.Flewelling@fwc.state.fl.us) and Jan Landsberg (Jan.Landsberg@fwc.state.fl.us) Florida Marine Research Institute

Subcontractors: Michael Kinsel (kinsel@uiuc.edu) University of Illinois; Nellio Barros (nbarros@mote.org) Mote Marine Laboratory, Deborah Duffield (duffieldd@pdx.edu) Portland State University; Megan Stolen (mstolen@hswri.org) Hubbs-Sea World Research Institute

Collaborators: Greg Bossart (gbossart@hboi.edu) Harbor Branch Oceanographic Institution

Award No. 2005-02 (\$53,658), August 1, 2005 to July 31, 2006) to Mote Marine Laboratory

Title: Brevetoxin induced morbidity and mortality in stranded and wild dolphin from central west Florida, Year 2

Summary: Harmful algal blooms, especially red tide species, are known to kill fishes, birds and manatees in the coastal areas of Florida. The extent that brevetoxin intoxication from these algae may cause morbidity and mortality in dolphins along the central west coast of Florida is being documented.

Principal Investigators and Co-PI's: Wendy Noke (wnoke@hswri.org), Megan Stolon (mstolen@hswri.org) and Eric Stolen (StoleED@kscems.ksc.nasa.gov) Hubbs-Sea World Research Institute

Collaborators: Daniel Odell (dodell@cfl.rr.com) Hubbs-Sea World Research Institute

Subcontractors: David Anderson (anderson@cnr.colostate.edu) Applied Information Company

Award No. 2005-04 (\$44,375, August 1, 2005 to July 31, 2006) to Hubbs-Sea World Research Institute

Title: Monitoring the Indian River Lagoon bottlenose dolphin (*Tursiops truncatus*) populations using an aerial survey: a critical tool for understanding population health and risk assessment.

Summary: An understanding of the abundance, distribution and movements of bottlenose dolphin in the Indian River lagoon is essential for assessing their overall health, evaluating anthropogenic effects, and estimating recruitment rates. This project will continue a program of monitoring population structure and habitat use throughout the year.

Principal Investigators and Co-PI's: Damon Gannon (damon@mote.org) and Randall Wells (rwells@mote.org) Mote Marine Laboratory

Award No. 2005-09 (\$47,086, August 1, 2005 to July 31, 2006) to Mote Marine Laboratory

Title: Quantifying habitat quality for bottlenose dolphins in Sarasota Bay: Year 2

Summary: The spatial and temporal patterns in the distribution of fish prey of dolphin within Sarasota Bay, Florida will be investigated for a second year. Pelagic and demersal species will continue to be sampled from a variety of habitats during summer and winter seasons. These data will be integrated with other relevant information to develop a trophic model capable of simulating the ecological consequences of changes in food web structure and habitat quality.

Principal Investigators and Co-PI's: David Mann (dmann@marine.usf.edu) University of South Florida; Randall Wells (rwells@mote.org) Mote Marine Laboratory

Collaborators: Mandy Hill Cook, University of South Florida; Laela Sayigh (siyighl@uncw.edu), University of North Carolina at Wilmington

Award No. 2005-10 (\$49,948, August 1, 2005 to July 31, 2006) to University of South Florida

Title: Passive acoustic detection of wild bottlenose dolphins in Sarasota Bay, Florida and broad-band noise monitoring

Summary: Bottlenose dolphin rely on sound for communication, navigation and foraging, thus their sense of hearing is vital for survival. Noise in their marine environment, both natural and man-made, have the potential to alter the ability of wild dolphins to detect sounds, and at chronic loud levels of exposure, may cause permanent hearing loss. An 8-channel hydrophone array will be situated in New Pass, Sarasota Bay, Florida to automatically detect dolphin whistles and echolocation clicks as well as to measure noise exposures of dolphins on a continuous basis.

Principal Investigators and Co-PI's: Douglas Wartzok (wartzok@fiu.edu) and Jennifer Lewis (Jennifer.lewisl@fiu.edu) Florida International University

Award No. 2005-11 (\$16,726, August 1, 2005 to July 31, 2006) to Florida International University

Title: Forces driving habitat use patterns: Investigation of leadership in the bottlenose dolphin (*Tursiops truncatus*)

Summary: Specific individuals within a dolphin population may initiate and guide movements during group travel. As a result, these leaders are likely to influence which habitats are occupied and for how long. Understanding the importance of these individuals to the social structure of dolphin guilds can provide insight for conservation and management strategies. Dolphins in the Lower Florida Keys will be targeted for this project.

Principal Investigators and Co-PI's: Douglas Nowacek (nowacek@ocean.fsu.edu) Florida State University

Collaborators: Randall Wells (rwells@mote.org) and Damon Gannon (dgannon@mote.org) Mote Marine Laboratory; David Mann (dmann@marine.usf.edu) University of South Florida; Ann Pabst (pabsta@uncw.edu) University of North Carolina at Wilmington

Subcontractors: Nellio Barros (nbarros@mote.org) Mote Marine Laboratory

Award No. 2005-12 (\$46,032, August 1, 2005 to July 31, 2006) to Florida State University

Title: Distribution, seasonality, habitat use, and the acoustic environment of Florida Big Bend dolphins: Year 2

Summary: Baseline data on the dolphins that inhabit the Big Bend coastline of Florida will be continued. During year 1 over 100 individuals were sighted and their distribution patterns were documented. In year 2 the abundance, location, behavior and diet of dolphin stocks will be related to seasonal changes in water quality and all of these data will be examined to determine the habitats that dolphins require for survival. Noise from dolphins, their prey and anthropogenic sources will be recorded to study how dolphin communication relates to their selection of prey and to determine the extent to which unnatural sounds may alter the communication between dolphins or impede their foraging behaviors.
