

## **Program Overview**

George Balazs – NOAA Zoologist and Program Leader, Senior Marine Turtle Scientist for Hawaii, other insular Pacific Islands, and Japan and Taiwan Regions

Stacy Hargrove -- NOAA Marine Turtle Research Biologist, Senior Marine Turtle Scientist and Alternate Program Leader  
Growth, Body Condition, Field Work, Data Management, Report Writing, Permits

Shawn Murakawa -- NOAA Marine Turtle Biological Technician  
Necropsies, Data Management, Currently participating half-time in NOAA Advanced Studies Program hence reduced work duties likely through 2011

Denise Parker -- JIMAR Senior Marine Turtle Research Associate  
Satellite Telemetry Data Processing, Mapping, Management, and Analysis, Report Writing, Liaison for all MTRP collaborations with EOD

Irene Nurzia-Humburg -- JIMAR Marine Turtle Research Associate  
Nesting Beach Research, Captive Care, IACUC, Data, Report Writing

William Connor -- JIMAR Marine Turtle Biological Technician  
Strandings, Necropsies, Sample Processing, Data

Tiffany Hooper --JIMAR Marine Turtle Biological Technician  
Strandings, Necropsies, Captive Care, Data

Shandell Brunson -- JIMAR Marine Turtle Administrative Assistant  
Administration, Budget, Procurement, Coordination, Travel, IACUC, Necropsies

## **Major Projects Since 2008:**

- 1) Parker, D. M., G. H. Balazs, C. S. King, L. Katahira, and W. Gilmartin. 2009. Short-range movements of hawksbill turtles (*Eretmochelys imbricata*) from nesting to foraging areas within the Hawaiian Islands. *Pac. Sci.* 63(3):371-382.
- 2) Russell, D. F. and G. H. Balazs. 2009. Dietary shifts by green turtles (*Chelonia mydas*) in the Kane'ohē Bay region of the Hawaiian Islands: A 28-year study. *Pac. Sci.* 63(2):181-192.
- 3) Work, T. M., J. Dagenais, G. H. Balazs, J. Schumacher, T. D. Lewis, J-A. C. Leong, R. N. Casey, and J. W. Casey. 2009. In vitro biology of fibropapilloma-associated turtle herpesvirus and host cells in Hawaiian green turtles (*Chelonia mydas*). *J. Gen. Virol.* 90(8):1943-1950.
- 4) Chaloupka M, Balazs GH, Work TM. 2009. Rise and fall over 26 years of a marine epizootic in Hawaiian green sea turtles. *Journal of Wildlife Diseases* 45(4): 1138-1142.
- 5) Arthur, K. and G. H. Balazs. 2008. A comparison of immature green turtles (*Chelonia mydas*) diets among seven sites in the main Hawaiian Islands. *Pac. Sci.* 62(2):205-217.

- 6) Arthur, K., C. Limpus, G. Balazs, A. Capper, J. Udy, G. Shaw, U. Keuper-Bennett, and P. Bennett. 2008. The exposure of green turtles (*Chelonia mydas*) to tumour promoting compounds produced by the cyanobacterium *Lyngbya majuscula* and their potential role in the aetiology of fibropapillomatosis. *Harmful Algae* 7(1):114-125.
- 7) Chaloupka, M., T. M. Work, G. H. Balazs, S. K. K. Murakawa, and R. Morris. 2008. Cause-specific temporal and spatial trends in green sea turtle strandings in the Hawaiian Archipelago (1982-2003). *Mar. Biol.* 154(5):887-898.
- 8) Chaloupka, M., K. A. Bjorndal, G. H. Balazs, A. B. Bolten, L. M. Ehrhart, C. J. Limpus, H. Suganuma, S. Troeeng, and M. Yamaguchi. 2008. Encouraging outlook for recovery of a once severely exploited marine megaherbivore. *Global Ecol. Biogeogr.* 17(2):297-304.
- 9) Dutton, P. H., G. H. Balazs, R. A. LeRoux, S. K. K. Murakawa, P. Zarate, and L. S. Martínez. 2008. Composition of Hawaiian green turtle foraging aggregations: mtDNA evidence for a distinct regional population. *Endang. Species Res.* 5:37-44.
- 10) Howell E.A., Kobayashi D.R., Parker D.M., Balazs G.H., Polovina J.J. 2008. TurtleWatch: a tool to aid in the bycatch reduction of loggerhead turtles *Caretta caretta* in the Hawaii-based pelagic longline fishery. *Endang. Species Res.* 2008.
- 11) Rice M.R., Balazs G.H. 2008. Diving behavior of the Hawaiian green turtles (*Chelonia mydas*) during oceanic migrations. *J. Exp. Mar. Biol. Ecol.* 356(1-2): 121-127.
- 12) Kobayashi D.R., Polovina J.J., Parker D.M., Kamezaki N., Cheng I.J., Uchida I., Dutton P.H., Balazs G.H. 2008. Pelagic habitat characterization of loggerhead sea turtles, *Caretta caretta*, in the North Pacific Ocean (1997-2006): Insights from satellite tag tracking and remotely sensed data. *J. Exp. Mar. Biol. Ecol.* 356(1-2): 96-114.

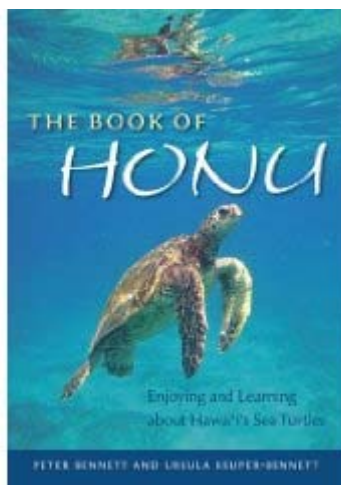
#### **Forthcoming Projects 2010-2011:**

- 1) Tiwari et al. Estimating Carrying Capacity at the Green Turtle Nesting Beach of East Island, French Frigate Shoals. (collaboration with SWFSC)
- 2) Wabnitz et al. Carrying capacity of green sea turtles (*Chelonia mydas*) at Kaloko-Honokohau, Hawai'i, and their role in reef resilience. (collaboration with EOD)
- 3) Work & Balazs. Pathology of drowning in long line bycatch turtles. (collaboration with USGS)
- 4) Peckham et al. Demographic implications of alternative foraging strategies in juvenile loggerhead turtles (*Caretta caretta*) of the North Pacific Ocean.
- 5) Howell et al. Oceanographic influences on the dive behavior of juvenile loggerhead turtles (*Caretta caretta*) in the North Pacific Ocean. (collaboration with EOD).
- 6) Kobayashi et al. Horizontal and vertical movements of pelagic Japanese loggerhead turtles taken as bycatch off the Pacific Coast of Taiwan. (collaboration with EOD).
- 7) Robson et al. Relationship between fibropapillomatosis and environmental quality: a case study with *Chelonia mydas* in the southwestern Atlantic.
- 8) VanHoutan et al. Eutrophication, invasive macroalgae, and a tumor-forming disease in marine turtles. (collaboration with MTAP)
- 9) Snover et al. Validation of annual skeletal marks in green sea turtles (*Chelonia mydas*) from Hawaii using tetracycline labeling.

- 10) Brenda Asuncion, Masters Thesis, Hawaii Pacific University. Characterizing juvenile green sea turtle (*Chelonia mydas*) habitat use in Kawainui, O‘ahu: a multi-disciplinary approach.
- 11) Kate‘lyn Valdez, Masters Thesis, University of Hawaii at Hilo. Foraging ecology of green turtles (*Chelonia mydas*) at Kapoho Bay, Hawaii.
- 12) Genetics of new nesting occurrence of green turtles in the Main Hawaiian Islands (collaboration with SWFSC)
- 13) Diet of pelagic green turtles taken as long line bycatch
- 14) Skeletochronology of Hawksbills in Hawaii
- 15) SIA of green turtles (collaboration with SWFSC)

**Education/Outreach Bonus Question: If you could submit an article highlighting a success story within your program, what accomplishment would you like to inform the public about?**

The publication of “The Book of Honu: Enjoying and Learning About Hawaii's Sea Turtles” by Peter Bennett and Ursula Keuper-Bennett was a significant accomplishment for MTRP in 2008. George Balazs contributed to the editing and reviewing of the book for 3 years prior to its publication. This book is a fantastic tool for educational outreach as it covers nearly every aspect of *honu* biology and life history.



In addition, MTRP regularly participates in educational outreach activities focused on the results of our research. Since 2005 our staff has logged 74 educational outreach events. We also take the opportunity to educate the public on a nearly daily basis through stranding response, phone calls received, and during ocean-capture field work.