List of 67 Journal Publications, 1999-2011
Marine Turtle Research Program
Protected Species Division
NOAA Pacific Islands Fisheries Science Center
July 2011

Trends, Status, and Assessment - 13 papers

Tiwari, M., G. H. Balazs, and S. Hargrove.
2010. Estimating carrying capacity at the green turtle nesting beach of East Island, French Frigate Shoals. Mar. Ecol. Prog. Ser. 419:289-294.

Wabnitz, G. Balazs, S. Beavers, K. A. Bjorndal, A. B. Bolten, V. Christensen, S. Hargrove, and D. Pauly.
2010. Ecosystem structure and processes at Kaloko Honokōhau, focusing on the role of herbivores, including the green sea turtle *Chelonia mydas*, in reef resilience. Mar. Ecol. Prog. Ser. 420:27-44.

Chaloupka, M., G. H. Balazs, and T. M. Work.
2009. Rise and fall over 26 years of a marine epizootic in Hawaiian green sea turtles. J. Wildl. Dis. 45(4):1138-1142.

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.

Chaloupka, M., K. A. Bjorndal, G. H. Balazs, A. B. Bolten, L. M. Ehrhart, C. J. Limpus, H. Suganuma, S. Troëng, and M. Yamaguchi.
2008. Encouraging outlook for recovery of a once severely exploited marine megaherbivore. Global Ecol. Biogeogr. 17(2):297-304.

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.

Chaloupka, M. and G. Balazs.
2007. Using Bayesian state-space modeling to assess the recovery and harvest potential of the Hawaiian green sea turtle stock. Ecol. Modell. 205:93-109.

Balazs, G. H. and M. Chaloupka.
2006. Recovery trend over 32 years at the Hawaiian green turtle rookery of French Frigate Shoals. Atoll Research Bulletin 543:147-158.

Zug, G. R., M. Chaloupka, and G. H. Balazs.
2006. Age and growth in olive ridley seaturtles *(Lepidochelys olivacea*) from the north-central Pacific: A skeletochronological analysis. Mar. Ecol. 27(3):263-270.

Chaloupka, M. and G. Balazs
2005. Modelling the effect of fibropapilloma disease on the somatic growth dynamics of Hawaiian green sea turtles. Mar. Biol. 147(5):1251-1260.

Balazs, G. H. and M. Chaloupka.
2004. Thirty-year recovery trend in the once depleted Hawaiian green sea turtle stock. Biological Conservation 117(2004):491-498.

Balazs, G. H. and M. Chaloupka.
2004. Spatial and temporal variability in somatic growth of green sea turtles (*Chelonia mydas*) resident in the Hawaiian Archipelago. Mar. Biol. 145:1043-1059.

Zug, G. R., G. H. Balazs, J. A. Wetherall, D. M. Parker, and S. K. K. Murakawa.
2002. Age and growth of Hawaiian green seaturtles (*Chelonia mydas*): an analysis based on skeletochronology. Fish. Bull. 100(1):117-127.

Life History and Ecology - 13 papers

Russell, D. F., S. Hargrove, and G. H. Balazs.
2011. Marine sponges, other animal food, and non-food items found in the digestive tracts of the herbivorous marine turtle *Chelonia mydas* in Hawai'i. Pac. Sci.

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.

Russell, D. F. and G. H. Balazs
2009. Dietary shifts by green turtles (Chelonia mydas) in the Kane'ohe Bay region of the Hawaiian Islands: A 28-year study. Pac. Sci. 63(2):181-192.

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.

Van Dam, R. P., C. E. Diez, G. H. Balazs, L. A. C. Colón, W. O. McMillan, and B. Schroeder.
2008. Sex-specific migration patterns of hawksbill turtles breeding at Mona Island, Puerto Rico. Endang. Species Res. 4(1-2):85-94.

McDermid, K. J., B. Stuercke, and G. H. Balazs.
2007. Nutritional composition of marine plants in the diet of the green sea turtle (*Chelonia mydas*) in the Hawaiian Islands. Bull. Mar. Sci. 81(1):55-71.

Zardus, J. D. and G. H. Balazs.
2007. Two previously unreported barnacles commensal with the green sea turtle, *Chelonia mydas* (Linnaeus, 1958), in Hawaii and a comparison of their attachment modes. Crustaceana 80(11):1303-1315.

Seaborn, G. T., M. K. Moore, and G. H. Balazs
2005. Depot fatty acid composition in immature green turtles (*Chelonia mydas*) residing at two near-shore foraging areas in the Hawaiian Islands. Comp. Biochem. Physiol. Part B(140):183-195.

Craig, P., D. Parker, R. Brainard, M. Rice, and G. Balazs.
2004. Migrations of green turtles in the central South Pacific. Biological Conservation 116(2004):433-438.

Russell, D. J., G. H. Balazs, R. C. Phillips, and A. K. H. Kam.
2003. Discovery of the sea grass *Halophila decipiens* (Hydrocharitaceae) in the diet of the Hawaiian green turtle, *Chelonia mydas*. Pac. Sci. 57(4):393-397.

Horrocks, J. A., L. A. Vermeer, B. Krueger, M. Coyne, B. A. Schroeder, and G. H. Balazs.
2001. Migration routes and destination characteristics of post-nesting hawksbill turtles satellite-tracked from Barbados, West Indies. Chelonian Conservation and Biology 4(1):107-114.

Pultz, S., D. O'Daniel, S. Krueger, H. McSharry, and G. Balazs.
1999. Marine turtle survey on Tinian, Mariana Islands. Micronesia 32(1):85-94.

Wyneken, J., G. H. Balazs, S. K. K. Murakawa, and Y. Anderson.
1999. Size differences in hind limbs and carapaces of hatchling green turtles (*Chelonia mydas*) from Hawaii and Florida, USA. Chelonian Conservation and Biology 3(3):491-495.

Health and Disease - 24 papers

Santos, R. G., A. S. Martins, J. D. Farias, P. A. Horta, H. T. Pinheiro, E. Torezani, C. Baptistotte, J. A. Seminoff, G. H. Balazs, and T. M. Work.
2011. Coastal habitat degradation and green sea turtle diets in Southeastern Brazil. Mar. Pollut. Bull.

Santos, R. G., A. S. Martins, E. Torezani, C. Baptistotte, J. D. N. Farias, P. A. Horta, T. M. Work, and G. H. Balazs.
2010. Relationship between fibropapillomatosis and environmental quality: a case study with *Chelonia mydas* off Brazil. Dis. Aquat. Org. 89:87-95.

Van Houtan, K. S., S. K. Hargrove, G. H. Balazs.
2010. Land use, macroalgae, and a tumor-forming disease in marine turtles. PLoS ONE 5(9):e12900, 9p.

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.

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.

Greenblatt, R. J., S. L. Quackenbush, R. N. Casey, J. Rovnak, G. H. Balazs, T. M. Work, J. W. Casey, and C. A. Sutton.
2005. Genomic variation of fibropapilloma-associated marine turtle herpesvirus across seven geographic areas and three host species. J. Virol. 79(2):1125-1132.

Greenblatt, R. J., T. M. work, P. Dutton, C. A. Sutton, T. R. Spraker, R. N. Casey, C. E. Diez, D. Parker, J. St. Leger, G. H. Balazs, and J. W. Casey.
2005. Geographic variation in marine turtle fibropapillomatosis. J. Zoo Wildl. Med. 36(3):527-530.

Work, T. M., G. H. Balazs, J. L. Schumacher, and A. Marie.
2005. Epizootiology of spirorchiid infection in green turtles (*Chelonia mydas*) in Hawaii. J. Parasitol. 91(4):871-876.

Greenblatt, R. J., T. M. Work, G. H. Balazs, C. A. Sutton, R. N. Casey, and J. W. Casey.
2004. The *Ozobranchus* leech is a candidate mechanical vector for the fibropapilloma-associated turtle herpesvirus found latently infecting skin tumors on Hawaiian green turtles (*Chelonia mydas*). Virology 321(2004):101-110.

Work, T. M., G. H. Balazs, R. A. Rameyer, and R. A. Morris.
2004. Retrospective pathology survey of green turtles *Chelonia mydas* with Fibropapillomatosis in the Hawaiian Islands, 1993-2003. Dis. Aquat. Org. 62:163-176.

Work, T, G. Balazs, M. Wolcott, and R. Morris.
2003. Bacteraemia in free-ranging Hawaiian green turtles *Chelonia mydas* with fibropapillomatosis. Dis. Aquat. Org. 53:41-46.

Aguirre, A. A., G. H. Balazs, T. R. Spraker, S. K. K. Murakawa, and B. Zimmerman.
2002. Pathology of oropharyngeal fibropapillomatosis in green turtles *Chelonia mydas*. J. Aquat. Anim. Health 14:298-304.

Miao, X.-S., G. H. Balazs, S. K. K. Murakawa, and Q. X. Li.
2001. Congener-specific profile and toxicity assessment of PCBs in green turtles (*Chelonia mydas*) from the Hawaiian Islands. Sci. Total Environ. 281:247-253.

Quackenbush, S. L., R. N. Casey, R. J. Murcek, T. A. Paul, T. M. Work, C. J. Limpus, A. Chaves, L. duToit, J. Vasconcelos P., A. A. Aguirre, T. R. Spraker, J. A. Horrocks, L. A. Vermeer, G. H. Balazs, and J. W. Casey.
2001. Quantitative analysis of herpesvirus sequences from normal tissue and fibropapillomas of marine turtles with real-time PCR. Virology 287:105-111.

Work, T. M., R. A. Rameyer, G. H. Balazs, C. Cray, and S. P. Chang.
2001. Immune status of free-ranging green turtles with fibropapillomatosis from Hawaii. J. Wildl. Dis. 37(3):574-581.

Aguirre, A. A. and G. H. Balazs.
2000. Blood biochemistry values of green turtles, *Chelonia mydas*, with and without fibropapillomatosis. Comparative Haematology International 10:132-137.

Lu, Y., A. A. Aguirre, T. M. Work, G. H. Balazs, V. R. Nerurkar, and R. Yanagihara.
2000. Identification of a small, naked virus in tumor-like aggregates in cell lines derived from a green turtle, *Chelonia mydas*, with fibropapillomas. J. Virological Methods 86:25-33.

Lu, Y., Y. Wang, Q. Yu, A. A. Aguirre, G. H. Balazs, V. R. Nerurkar, and R. Yanagihara.
2000. Detection of herpesviral sequences in tissues of green turtles with fibropapilloma by polymerase chain reaction. Archives of Virology 145:1885-1893.

Work, T. M., G. H. Balazs, R. A. Rameyer, S. P. Chang, and J. Berestecky.
2000. Assessing humoral and cell-mediated immune response in Hawaiian green turtles, *Chelonia mydas*. Vet. Pathol. Immunopathol. 74(2000):179-194.

Aguirre, A. A., T. R. Spraker, A. Chaves, L. du Toit, W. Eure, and G. H. Balazs.
1999. Pathology of fibropapillomatosis in olive ridley turtles *Lepidochelys olivacea* nesting in Costa Rica. J. Aquat. Anim. Health 11:283-289.

Herbst, L. H., E. R. Jacobson, P. A. Klein, G. H. Balazs, R. Moretti, T. Brown, and J. P. Sundberg.
1999. Comparative pathology and pathogenesis of experimentally induced and spontaneous fibropapillomas of green turtles (*Chelonia mydas*). Vet. Pathol. 36:551-564.

Landsberg, J. H., G. H. Balazs, K. A. Steidinger, D. G. Baden, T. M. Work, and D. J. Russell.
1999. The potential role of natural tumor promoters in marine turtle fibropapillomatosis. J. Aquat. Anim. Health 11:199-210.

Lu, Y., V. R. Nerurkar, A. A. Aguirre, T. M. Work, G. H. Balazs, and R. Yanagihara.
1999. Establishment and characterization of 13 cell lines from a green turtle (*Chelonia mydas*) with fibropapillomas. In Vitro Cell. Dev. Biol.-Animal 35:389-393.

Work, T.M. and G.H. Balazs.
1999. Relating tumor score to hematology in green turtles with fibropapillomatosis in Hawaii. J. Wildl. Dis. 35(4):804-807.

Pelagic Ecology - 15 (8 of 15 papers have lead authorship by the PIFSC Ecosystems and Oceanography Division)

Parker, D. M., P. M. Dutton, and G. H. Balazs.
2011. Oceanic diet and distribution of genotypes for the green turtle, *Chelonia mydas*, in the central North Pacific. Pac. Sci.

Peckham, S. H., D. Maldonaldo-Diaz, Y. Tremblay, R. Ochoa, J. Polovina, G. Balazs, P. H. Dutton, and W. J. Nichols.
2011. Demographic inmplcations of alternative foraging strategies in juvenile loggerhead turtles *Caretta caretta* of the North Pacific Ocean. Mar. Ecol. Prog. Ser. 425:269-280.

Kobayashi, D. R., I.-J. Cheng, D. M. Parker, J. J. Polovina, N. Kamezaki, and G. H. Balazs.
2011. Loggerhead turtle (*Caretta caretta*) movement off the coast of Taiwan: characterization of a hotspot in the East China Sea and investigation of mesoscale eddies. ICES J. Mar. Sci. doi:10.1093/icesjms/fsq185, 12p.

Howell, E. A., P. H. Dutton, J. J. Polovina, H. Bailey, D. M. Parker, and G. H. Balazs.
2010. Oceanographic influences on the dive behavior of juvenile loggerhead turtles (*Caretta caretta*) in the North Pacific Ocean. Mar. Biol. 157:1011-1026.

Work, T. M. and G. H. Balazs.
2010. Pathology and distribution of sea turtles landed as bycatch in the Hawaii-based North Pacific pelagic longline fishery. J. Wildl. Dis. 46(2):422-432.

Howell, E. A., D. R. Koyabashi, D. M. Parker, G. H. Balazs, and J. J. Polovina.
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. 5:267-278.

Kobayashi, D. R., J. J. Polovina, D. M. Parker, N. Kamezaki, I.-J. Cheng, I. Uchida, P. H. Dutton, and G. H. Balazs.
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. 356:96-114.

Rice, M. R. and G. H. Balazs.
2008. Diving behavior of the Hawaiian green turtle (*Chelonia mydas*) during oceanic migrations. J. Exp. Mar. Biol. Ecol. 356(1-2):121-127.

Polovina, J., I. Uchida, G. Balazs, E. A. Howell, D. Parker, and P. Dutton.
2006. The Kuroshio Extension bifurcation region: A pelagic hotpot for juvenile loggerhead sea turtles. Deep Sea Research Pt II: Top. Studies Oceanography 53(3-4):326-339.

Parker, D. M., W. J. Cooke, and G. H. Balazs.
2005. Diet of oceanic loggerhead sea turtles (*Caretta caretta*) in the central North Pacific. Fish. Bull. 103:142-152.

Chaloupka, M., D. Parker, and G. Balazs.
2004. Modelling post-release mortality of loggerhead sea turtles exposed to the Hawaii-based pelagic longline fishery. Mar. Ecol. Prog. Ser. 280:285-293.

Polovina, J. J., G. H. Balazs, E. A. Howell, D. M. Parker, M. P. Seki, and P. H. Dutton.
2004. Forage and migration habitat of loggerhead (*Caretta caretta*) and olive ridley (*Lepidochelys olivacea*) sea turtles in the central North Pacific Ocean. Fish. Oceanogr. 13:1, 36-51.

Polovina, J. J., E. Howell, D. M. Parker, and G. H. Balazs.
2003. Dive-depth distribution of loggerhead (*Caretta caretta*) and olive ridley (*Lepidochelys olivacea*) sea turtles in the central North Pacific: Might deep longline sets catch fewer turtles? Fish. Bull. 101(1):189-193.

Work, T. M. and G. H. Balazs.
2002. Necropsy findings in sea turtles taken as bycatch in the North Pacific longline fishery. Fish. Bull. 100:876-880.

Polovina, J. J., D. R. Kobayashi, D. M. Parker, M. P. Seki, and G. H. Balazs.
2000. Turtles on the edge: Movement of loggerhead turtles (*Caretta caretta*) along oceanic fronts, spanning longline fishing grounds in the central North Pacific, 1997-1998. Fish. Oceanogr. 9:71-82.

Research Techniques – 2 papers

Snover, M. L., A. A. Hohn, L. R. Goshe, and G. H. Balazs.
2011. Validation of annular skeletal marks in green sea turtles *Chelonia mydas* using tetracycline labeling. Aquat. Biol. 12:197-204.

Balazs, G. H.
1999. Factors to consider in the tagging of sea turtles. *In* K. L. Eckert, K. A. Bjorndal, F. A. Abreu-Grobois, and M. Donnelly (eds.), Research and Management Techniques for the Conservation of Sea Turtles, p. 101-109. IUCN/SSC Marine Turtle Specialist Group Publication No. 4.