

FIBROPAPILLOMAS IN THE HAWAIIAN GREEN TURTLE: SEARCHING FOR AN ETIOLOGIC AGENT

A. Alonso Aguirre¹

George H. Balazs²

B. Zimmerman¹

Terry R. Spraker³

¹ Wildlife Pharmaceuticals, Inc., 1401 Duff Drive, Suite 800, Fort Collins, Colorado 80524 USA

² NMFS Southwest Fisheries Science Center, Honolulu Laboratory, 2570 Dole Street, Honolulu, Hawaii 96822-2396 USA

³ Diagnostic Laboratory, College of Veterinary Medicine, Colorado State University, Fort Collins, Colorado 80523 USA

Thirty two juvenile green sea turtles (*Chelonia mydas*) were trapped in Kaneohe Bay, Oahu Island, Hawaii, during September 1991. Thirty one percent of the turtles sampled presented green turtle fibropapillomas (GTFP) with different degrees of severity. Virus isolation attempts were negative in all individuals. Nasopharyngeal and cloacal swabs taken yielded 28 Gram negative bacteria, 5 Gram positive cocci, *Bacillus* spp., and diphtheroids. The most common isolates included *Pseudomonas fluorescens* (68%), *P. putrefaciens* (66%), *Vibrio alginolyticus* (50%), non-hemolytic *Streptococcus* (50%), *V. damsela* (47%), and *V. fluvialis* (47%). Chlamydial antigen was detected in 12.5% of the turtles sampled. No hemoparasites were observed in thin blood smears analyzed. Light and electron microscopy were performed in tumor biopsies providing histopathologic characterization of GTFP. The primary lesions in these animals were characterized by a hyperplasia of squamous epithelial cells and mesodermal proliferation with a marked degree of orthokeratotic hyperkeratosis. Mites, leeches, and other organisms were associated with the surface of papilloma lesions. Although the etiologic agent of GTFP was not isolated or characterized this pilot study provided new information and possible insights in identifying the etiology of GTFP. Further parasitologic, pathologic, toxicologic, and epidemiologic studies are recommended.



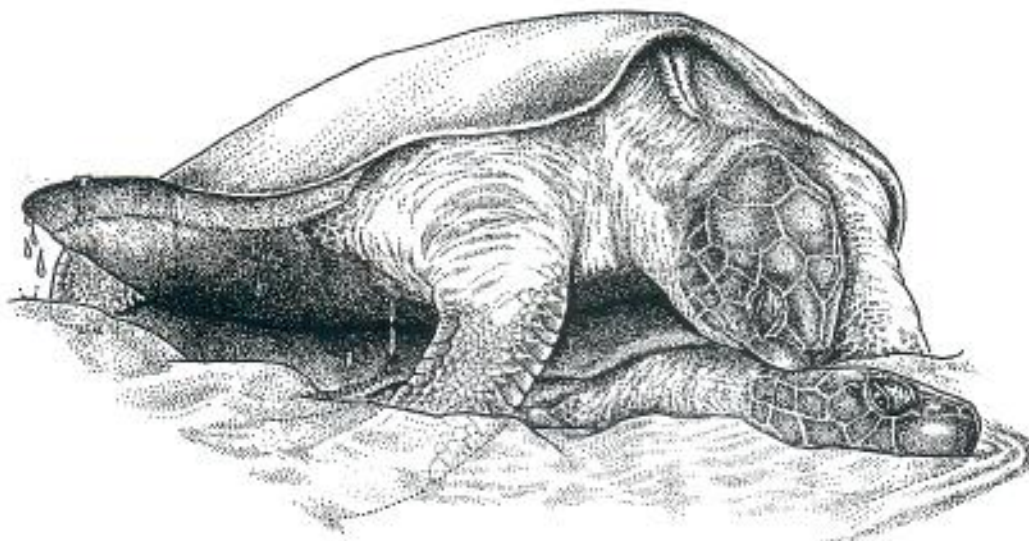
NOAA Technical Memorandum NMFS-SEFSC-341

**PROCEEDINGS OF THE THIRTEENTH ANNUAL SYMPOSIUM
ON SEA TURTLE BIOLOGY AND CONSERVATION**

23-27 February 1993
Jekyll Island, Georgia

Compilers:
Barbara A. Schroeder
Blair E. Witherington

January 1994



U.S. Department of Commerce
National Oceanographic and Atmospheric Administration
National Marine Fisheries Service
Southeast Fisheries Science Center
75 Virginia Beach Drive
Miami, FL 33149