

TRACKING “DAWN” INTO THE HORIZON OIL SPILL

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From 2003-2010, the Sea Turtle Conservancy, formerly the Caribbean Conservation Corporation, has tracked 20 adult female leatherbacks from nesting beaches located along the Caribbean coast of Costa Rica (Tortuguero & Gandoca) and Panama (Chiriquí Beach). All PTTs, except two MK-10A Ridgemount Units by Wildlife Computers, were attached dorsally to the female turtles during nesting using a custom-fitted harness made of nylon webbing and polyvinyl tubing, and designed to be released within approximately two years. The two MK-10As were attached directly to the dorsal ridge with wire cables and were designed to be released within approximately 1 year. Tracking duration ranged from 23 days to over 522 days, with an average of 216 days. Seventeen of the 20 tracks provided sufficient tracking data to establish a migratory route out of the Caribbean; of these 13 were extensive enough to suggest possible foraging areas. Of these, six were tracked to the Gulf of Mexico by traveling between the western tip of Cuba and the Yucatan Peninsula of Mexico. The remaining 11 leatherback turtles were tracked traveling from the Caribbean Sea into the northern Atlantic Ocean, through one of three passages: either between Cuba and Haiti (3), between the Dominican Republic and Puerto Rico (6), or between the British Virgin Islands and Anguilla (2). Within the Gulf of Mexico, five leatherbacks stayed within the eastern part of the Gulf off the coasts of Florida and Alabama, while the sixth traveled into the western Gulf of Mexico. In June of 2010, STC tracked a leatherback turtle named “Dawn” from her nesting beach at Chiriquí Beach, Panama, into the Gulf of Mexico during the oil spill. Her track followed similar observed tracks in previous years, which lead right into the oil slicks off the coasts of Alabama, Mississippi, and Louisiana. Dawn's movements did not seem to change once she entered areas with visible oil slicks as represented by NOAA oil spill data layers. Between July 23 and September 27, 2010, Dawn entered into the oil spill area two separate times. There have been recorded sightings of leatherbacks throughout the Gulf of Mexico, as well as flipper tag recoveries from females tagged on nesting beaches in Caribbean Central America. Our tracking research was the first to suggest that these animals may be foraging rather than just migrating through the Gulf of Mexico. In 2007 we concluded that the Gulf of Mexico may represent a significant foraging ground for leatherbacks from the Caribbean coast of Central America and identified oil drilling as a potential threat to these turtles while in the Gulf of Mexico. Our continued tracking and the Deepwater Horizon oil spill in the Gulf of Mexico have supported these conclusions. Our continued research and conservation program at Chiriquí Beach, may reveal information about the survival of turtles who were in the Gulf of Mexico in 2010 and potentially exposed to oil. It is possible that monitoring programs at nesting beaches might observe reduced survival or reduced nesting success of turtles exposed to oil.