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TEMPERATURE COMPARISON OF CARETTA CARETTA NESTING BEACHES THROUGHOUT FLORIDA

Loggerhead sea turtles are well known for nesting in the southeastern U.S. Loggerheads possess temperature-dependent sex determination which has conservation and ecological implications. The current study represents a comprehensive and simultaneous comparison of nesting beach temperatures throughout the range of major loggerhead nesting beaches in Florida. Beach temperatures were monitored at mid-nest depth (40 cm) in areas where the majority of nesting occurred. Beach temperatures were monitored for two nesting seasons using data loggers on 8 to 13 loggerhead nesting beaches throughout Florida. Although data loggers were lost on several of the nesting beaches due to the abundance of hurricanes, data was obtained from many of the beaches. In general, beach temperatures during the nesting seasons varied relative to weather and, in particular, to precipitation. Most temperatures recorded at mid-nest depth were within a range of 26-32°C, with an approximate average of 30°C. Preliminary analysis suggests that temperatures recorded on a single beach tended to be similar. The results also indicate that some beaches may be consistently warmer or cooler than others. The findings of this study facilitate the identification of nesting beaches which may be of conservation and management interest due to their thermal characteristics.