Order: 108 **Abstract ID:** 1618 **Type:** Poster **Subject:** Behavior and Movements

USING HYDROACOUSTICS TO PREDICT HABITAT USE OF FORAGING JUVENILE LOGGERHEAD TURTLES IN BAJA CALIFORNIA SUR, MEXICO

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Predicting habitat use of highly migratory endangered megavertebrates can be useful in reducing fisheries mortality. In addition, habitat use of a full range of pelagic species show strong correlation to trends in the distribution and abundance of their prey (Croll *et al.*, 2005). Studies by Peckham and Nichols (2002 and unpublished data) have shown that juvenile loggerheads (*Caretta caretta*) foraging off Baja California Sur (BCS) feed primarily and exclusively on the pelagic red crab (*Pleuroncodes planipes*). We are developing an integrated approach for testing the hypothesis that loggerhead distribution can be predicted by the distribution and abundance of swarms of red crabs in the water column. We will test the efficacy of measuring prey abundance by using hydroacoustics to chart red crab aggregations along the inshore edge of loggerhead foraging hotspots. Preliminary results show targets that appear to be red crab frequency and density increase along transects of increasing loggerhead abundance. We conclude that hydroacoustic surveys are useful in ascertaining red crab distribution within loggerhead hotspot areas. In 2006 we will be initiating hydroacoustic surveys on larger vessels to map red crab abundance across a full range of loggerhead abundance, onshore and offshore.

Acknowledgments: DKW gratefully acknowledges travel support from Disney Animal Kingdom, Western Pacific Regional Fisheries Management Council, US National Marine Fisheries Service, and US Fish and Wildlife Service, provided through the Symposium Travel Committee.

26th Annual Symposium on
Sea Turtle Biology and Conservation

Island of Crete, Greece, 3-8 April 2006

Book of Abstracts

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International Sea Turtle Society

Athens, Greece
March 2006