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## **ENVIRONMENTAL INFLUENCES ON THE TRANS-OCEANIC MIGRATIONS OF NORTH PACIFIC LOGGERHEAD SEA TURTLES**

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The oceanic stage of juvenile loggerhead sea turtles (*Caretta caretta*) can last for decades. In the North Pacific Ocean, much is known about their seasonal movements in relation to pelagic habitat and the Transition Zone Chlorophyll Front (TZCF). Yet understanding the timing of behavioural responses in relation to oceanic features, trans-oceanic migrations, ontogenetic shifts, and alternative foraging strategies have been more difficult. As foraging success is tied to population status, adaptation to climate-related changes in oceanic conditions is imperative. Predicted changes in the biophysical process associated with juvenile North Pacific loggerhead habitat (i.e. expansion of oligotrophic waters, shifts in TZCF location) will have lasting impacts on the ability of this top predator to adapt in a changing climate. Here, we examine the environmental influences of static variables (e.g. magnetic field) and dynamic variables (e.g. sea-surface temperature, chlorophyll-a, eddy-kinetic energy) on the multiyear timing of east and westward movements of juvenile loggerhead sea turtles and potential influences of changing environmental cues in the behavioural plasticity on the large-scale migratory movements of this animal.

**Session:** 'In-Water Biology (Ecology, Telemetry, Foraging, Behaviour'

**Presentation Type:** Oral Presentation

**Equipment Requested:** Computer Projector with MS PowerPoint

**Student:** NA

**Grass Roots Award:** NA