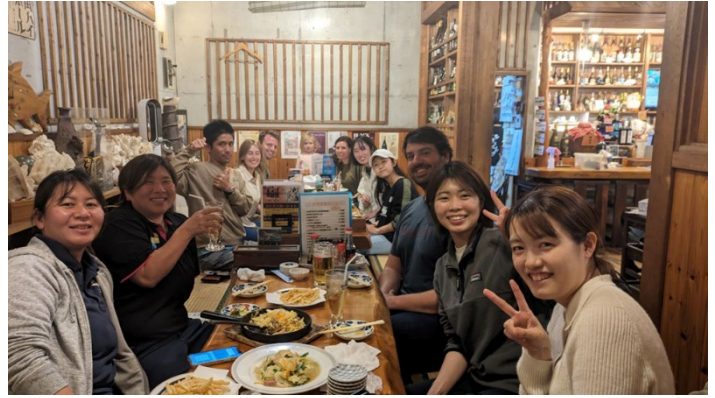


Visiting Professors' Report

Prof. Andreas Fahlman

Fundacion Oceanografic de la Comunitat Valenciana

I would like to express my gratitude for being able to obtain the AORI as a visiting professor fellowship from February until the end of March 2024. During this period I was hosted by Professor Katsufumi Sato and Associate Professor Kentaro Sakamoto, at the Department of Marine Bioscience. This is my second visit to Japan, the first was in 2022, and has helped strengthen our past collaborations and also resulted in new projects. These collaborations are an amazing opportunity to participate in the cutting-edge research done on diving physiology in sea turtles done by Professor Sakamoto, and learn from him and his students. My visit to Japan also coincided with the Biologging conference that was held in Tokyo, giving me an opportunity to host a workshop on the emerging field of Physio-logging.



The team from AORI, Okinawa Churaumi Aquarium, Okinawa Churashima Foundation, Pacific Whale Foundation and University of Hawaii having dinner after a week of data collection.

The research groups lead by Professors Sato and Sakamoto are at the forefront in the field of biologging, and it is a great honor to participate and learn from them. During the month of February, I had an opportunity to interact with their students and learn about their research projects that were subsequently presented at the Biologging meeting. I had several meetings with PhD students that work with Professor Sakamoto and they discussed their data on heart rate in turtles. During these discussions, Professor Sakamoto and I have initiated a new research collaboration where we aim to study the ability for turtles to sense magnetism. One student from my research group will visit Japan in July and August 2024 to learn how to measure heart rate and movement in turtles. The student will then measure if changes in the magnetic field alters heart rate variability or movement behavior.

In early March, two PhD students from Professor Sakamoto's laboratory went to Okinawa to work with international research groups from the US and the Okinawa Churaumi Aquarium and Okinawa Churashima Foundation. In this study, our aim is to determine the relationship between activity and energy use. This project will continue for a few years with collaboration with Professor Sakamoto.

The collaborations that have begun during this period have been made possible through this fellowship provided by AORI



Dr. Kentaro Sakamoto of AORI giving a lecture on heart rate function in turtles during the Physio-logging workshop.



The Physio-logging workshop held before the Biologging 8 conference..