YUTIAN FANG

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EDUCATION

University of California, Scripps Institution of Oceanography - La Jolla, CA 06/2019 Bachelor of Science: Marine Biology

GPA: 3.9/4.0

Main Courses: Marine Biology (including Lab), Biological, Physical and Chemical Oceanography, Marine Biochemistry (including Biochemical Technique Lab), Marine Ecology (Coral Reef and Marine Mammal)

Duke University, Nicholas School of Environment - Durham, NC 04/2021 Master of Environmental Management

GPA: 3.95/4.0

Main Courses: Environmental Economics, Ocean and Costal Law and Policy, Marine Policy, Policy Analysis in Commons, Data Analysis, Marine Geospatial Analysis, Qualitative Research Method, Marine Mammal Biology

RESEARCH INTEREST

Interdisciplinary Science in Marine Conservation, Marine Geospatial Analysis, Fishery Management, and Marine Ecology

ACCOMPLISHMENTS

Scientific Product & Presentation

Scientific Product

Summer research report (2020): Yutian Fang. Geospatial Analysis of Global Small-scale Fisheries (will incorporate into a small section in the final FAO IHH report)

Presentation

Yutian Fang, Anai Novoa & Ryan Hechinger, "How does Trophically Transmitted Parasitism Map onto the Geographic Distribution of Three Fish Species?", Undergraduate Research Symposium, Scripps Institution of Oceanography, University of California San Diego. La Jolla, CA. June, 2019
Yutian Fang, "Estimating Cetacean Bycatch from Tuna Drift Gillnet Fisheries in Sri

Lanka, India and Pakistan", Master Project Symposium, Nicholas School of

Environment, Duke University. Durham, NC. April, 2021 Scholarship, Awards, & Honors Nicholas School of Environment, Financial Aid Scholarship (\$5000) Nicholas School of Environment, Summer Research Award (\$3000) Megna Cum Laude Honor, University of California, San Diego Provost Honor (every quarter), University of California, San Diego

SKILLS

Computer Skill: Microsoft Office Software (Excel, Word etc.), proficient in ArcGIS related software (including the use of GPS Unit), working knowledge of MATLAB, R, Python and Nvivo12.

<u>Lab Skill:</u> Microscopy, Pipette, Serilization, Gel electrophoresis, Polymerase Chain Reation (PCR), Western Blot, Epifluorescence microscopy, Animal Dissection and Necropsy <u>Language Skill:</u> Chinese (Native), English (Highly Proficient), Spanish (Beginner)

RESEARCH EXPERIENCE

Research Assistant | Nicholas Institute For Environmental Solution Establishing Global Database for Exclusive Fishing Rights 04/2021 - 09/2021 in Small-scale Fisheries

Supervisor: Dr. John Virdin

- Conduct legislation review on exclusive fishing rights for small-scale fisheries for all global coastal countries and compile the information into a global database

Independent Master Project | Duke University Marine Laboratory

Addressing Knowns and Unknowns about Marine

08/2020 - 04/2021

Mammals in the Indian Ocean

Supervisor: Dr. Andrew Read

- Describe the current status of known information about marine mammals, marine mammal bycatch and gillnet fisheries in the Indian Ocean, and identify where there are knowledge gaps
- Conduct systematic literature review and data analysis about marine mammal species and density, marine mammal bycatch, and fishing efforts in Indian Ocean
- Produce map that inform policy makers about the potential knowledge gap hotspots in Indian ocean

Research Assistant | Duke University Marine Laboratory 05/2020 - 09/2020 Geospatial Analysis of Global Small-scale Fisheries (Associated with Illuminating Hidden Harvest Project in FAO)

Supervisor: Dr. Xavier Basurto Guillermo, Dr. Patrick Halpin

- Conducted legislation review of marine small-scale fisheries regulations for 58 countries that incorporated in the IHH project, determined the extent of exclusive small-scale fishing zone for each country
- Used ArcGIS pro to delineate the exclusive small-scale fishing zone for each country, and did comparative geospatial analysis between exclusive SSF zone and other important marine regions
- Produced final summer research report about the current research result, which will be incorporated into a small section in the final FAO IHH report

Independent Research Project | Scripps Institution Of Oceanography

Map Trophically Transmitted Parasitism onto the 02/2019 - 06/2020

Geographic Distribution of Three Fish Species

Supervisor: Dr. Ryan Hechinger

- Spent 10 hours/week to conduct dissections of three fish species (*Atherinops affinis, Gillichthys mirabilis,* and *Fundulus parvipinnis*) in laboratory
- Counted, identified and categorized parasites based on their taxonomy and consumer strategies
- Did comparative statistical analysis between the richness of the parasites and the geographical range of their host fish species, produced research poster to present in the undergraduate research symposium

Volunteer Research Assistant | NOAA Southwest Fisheries Science Center Undergraduate Assistant in Marine Mammal and Sea 09/2018 - 01/2019 Turtle Division

Supervisor: Dr. Lisa T. Ballance

- Participated and assisted in population survey and tagging for Green sea turtle and coastal bottlenose dolphin along the coast of California
- Assisted in necropsy of dead marine mammals in order to determine cause of fatality in NOAA stranding Response Network

Research Assistant | Scripps Institution Of Oceanography 01/2018 - 07/2018 California Killifish Husbandry and Behavioral Video Analysis Supervisor: Dr. Ryan Hechinger

- Took care of sample killifish, collected designated parasites from the sample snails from mesocosm, counted and observed parasites with microscopes, calculated numbers of parasite on each fish, and processed infection
- Reviewed recorded video of fish behavior, analyzed fish behaviors before parasites infection, after parasites infection, and infection by different parasites, and then documented changes in fish behavior

Peer Math Tutor | Learning Commons, University of California San Diego

- Tutored in college-level calculus course, prepared and hold 03/2018 - 07/2018 midterm/final review session in calculus for peer students

Summer Research Assistant | Tsinghua University 06/2017 - 08/2017 Detection for Stable I sotope in Carbon and Nitrogen Cycle of Mangrove Ecosystem

Supervisor: Prof. Guanghui Lin

- Examined and detected $\delta 13C\%$, $\delta 18O\%$, $\delta D\%$, and $\delta 15N\%$ etc. for collected solid, liquid and gas samples from mangrove ecosystem with Isotope Ratio Mass Spectrometry, documented the isotope ratio and illustrated with graph
- Assisted in maintenance and cleaning of the precision laboratory equipment