

Nicole Barbour

4006 Oglethorpe Street, Hyattsville MD 20782

(714) 631-3359

nbarbour@terpmail.umd.edu

EDUCATION

Current: PhD student under the advisement of Dr. Bill Fagan and Dr. Helen Bailey in the Marine Estuarine and Environmental Science program at University of Maryland, College Park, start date Fall 2017

B.S. degree in Biology, Cal State Monterey Bay, Fall 2014-Fall 2016

AS degree in Natural Sciences, Orange Coast College, Fall 2011-Fall 2014

Goals: Doctorates in Ecology

Research Focus: Movement and spatial ecology of sea turtles in the eastern Pacific and western Atlantic regions. Specifically interested in the impact of threatening anthropogenic activities like fishing and pollution on the distribution of sea turtles of different life stages and species.

Relevant Undergraduate coursework:

- Intertidal Ecology (Fall 2012, Grade A)
- Grey Whale Ecology (Fall 2012, Grade A)
- Marine Mammals (Spring 2013, Grade A)
- Diversity of Organisms Biology (Spring 2014, Grade A)
- Island Ecology (Fall 2014, Grade A)
- Animal Physiology (Spring 2015, Grade A)
- Quantitative Marine Science (Fall 2015, Grade A)
- Applied Statistics: Science Technology (Fall 2015 Grade A)
- Ecology (Spring 2016, Grade A)
- Advanced GIS and Spatial Analysis (Spring 2016, Grade A)
- Marine Biology (Fall 2016, Grade A)
- Practical Computing for Scientists (Fall 2016, Grade A)
- Applied Statistical Methods: Linear Models (Fall 2016, Grade A)

Graduate coursework:

- Responsible Conduct of Research (Fall 2017, Grade A)

- Ecological Systems (Fall 2017, Grade A)
- Environmental Statistics I (Fall 2017, Grade A)

RELATED EXPERIENCE

- **Summer UROC Research Assistant at University of Maryland**, Summer 2016: Partnered with a PhD student in the Bill Fagan Lab at UMD to carry out an independent research project on how turkey vultures are affected during their migration by landscape structure and environmental factors; carried out analysis using R and GIS; 40 hrs/week June-August
- **Summer UROC Research Assistant at Moss Landing Marine Laboratories**, Summer 2015: Partnered with a graduate student at Moss Landing Marine Laboratories and was funded by UROC (Undergraduate Research Opportunities Center) at CSUMB to design an independent summer research project that involved research methodology development, data collection, and research presented in the form of a poster at a symposium; 10 hrs/week from June-August.
- **Aquarium of the Pacific Photo-ID Intern**, Summer-Fall 2014: Interned under the Aquarium of the Pacific (Kera Mathes) collecting behavioral data and photo ID on different cetaceans on whalewatch boats out of Long Beach harbor; work included interpreting to Aquarium guests and doing data and photo processing to be sent to the Aquarium's whale app and Cascadia Research Collective; 15 hrs per week for 12 weeks.
- **Coastal Dolphins of Orange County (CDOC) Intern**, Summer 2013: Interned under Dr. Kayla Causey of CSUF conducting research on coastal bottlenose dolphins through a combination of fieldwork (boat and shore), laboratory work, and literature/research projects workshops; around 20 hours per week for 12 weeks.
- **ACS Naturalist on Whalewatch Boats**, Winter-Spring 2014: Volunteered under the American Cetacean Society (ACS) educating visitors in a public speaking environment about the cetaceans and marine life they encounter going out of Newport Landing and Dana Wharf whalewatch boats; one whale watch per week.
- **Research Coordinator for Coastal Dolphin Survey Project (CDSPP)**, Spring 2014: Partnered with Professor Karen Baker and Professor Dennis Kelly at Orange Coast College in educating community college students with an enthusiasm for dolphins and research in basic field research techniques (shore and boat), photo ID, data entry, and lab/research work.

WORK

- **Marine Landscape Ecology Lab Undergraduate Researcher**, Spring 2015-Fall 2016: Worked as an undergraduate researcher at the Marine Landscape Ecology Lab at CSUMB on the Geomorphology Project, using data analysis of tow-camera video and photo stills, species identification, data collection and multitasking on boat surveys, and reviewing primary literature; research was used to complete an Independent Honors Research Capstone on how biological communities on the continental shelf are distributed over space and time and affected by dynamic processes and El Nino.
- **Educator at Return of the Natives Restoration Education Project**, Fall 2015-Fall 2016: Partnered with local schools and communities in educating children and the public about local ecosystems and their restoration through hands-on activities, classroom presentations, and community projects.

- **Tidepool Educator through the Laguna Ocean Foundation**, Spring 2014-Winter 2015: worked as an educator in marine protected tidepool areas of Laguna Beach educating visitors on tidepool ecology, MPA policy and guidelines, and biology of tidepool inhabitants.
- **Summer Camp Science Instructor at the Pacific Marine Mammal Center**, Summer 2014: lead science instructor working with kids 8-11 (4th and 5th grade) through Powerpoints presentations and hands-on activities on learning basic science concepts, marine ecology, pinniped rehabilitation, and environmental awareness.

SKILLS

- Developed quantitative and computing skillsets with various software, including ArcGIS, MS Excel, statistical analysis (R and JMP), Python, Unix, MySQL, and photo identification using ImageJ and MS Access
- Experienced in literature review and writing, with experience in years of college essay writing, scientific journal article reviews and comprehension, proposal and scientific paper writing, and poster and oral presentation of research
- Experienced in working with a digital camera/tow-camera and species video/photo ID, especially in regards to marine mammals and benthic invertebrates
- Physically strong and capable of strenuous, tasking work on a boat and in the field, including the ability to work long hours on a boat (12 hours or more) or in “dirty” field locations while multitasking in recording data, operating equipment, and participating boat operations
- Experienced in presentation, public speaking, and working with the public in often hectic environments in a way that engages a crowd; also experienced in microphone use and Powerpoint presentation

PRESENTATIONS

- CSUMB Fall Showcase, Fall 2016, Oral Presentation: “Spatial and temporal variability on the Monterey Bay sandy continental shelf”
- Western Society of Naturalists Annual Meeting, Fall 2016, Oral Presentation: “Spatial and temporal variability of a biological guild on the Monterey Bay sandy continental shelf during the 2015-2016 El Nino”
- SACNAS Diversity in Stem Conference, Fall 2016, Oral Presentation: “Landscape structure in relation to stopover site selection in Turkey Vultures”
- UROC Annual Summer Research Symposium, Summer 2016, Oral Presentation: “Landscape structure in relation to stopover site selection in Turkey Vultures”
- Western Society of Naturalists Annual Meeting, Fall 2015, Poster Presentation: “Potential for a non-native cascade on *Ficopomatus enigmaticus* reefs in Elkhorn Slough”
- UROC Annual Summer Research Symposium, Summer 2015, Poster Presentation: “Potential for a non-native cascade on *Ficopomatus enigmaticus* reefs in Elkhorn Slough”
- The California Student Chapter of the Society for Marine Mammalogy Chapter Meeting, Fall 2013, Poster Presentation: “Dolphin Occurrence and Behavior in the Context of Orange County Marine Protected Areas”
- STEM Symposium at Cal State Fullerton, Spring 2013, Poster Presentation: “Concentration of DDT’s and PCB’s in Various Southern California Dolphin Species”

AWARDS

- Receiver of 1st Place for the California State University Monterey Bay Fall Undergraduate Research, Scholarship, and Creative Activity Showcase, Fall 2016, \$200
- California State University Monterey Bay Deans List, Spring 2015-Fall 2016
- Receiver of Marine Science Teaching Assistant Scholarship, Spring 2013, \$500
- Receiver of Spring 2014 Garrison Fellow Award for outstanding academic excellence and leadership

REFERENCES

Dr. Helen Bailey, Associate Research Professor, Chesapeake Biological Laboratories, University of Maryland Center for Environmental Science

Bailey Lab, Principle Investigator

410-326-7284

hbailey@umces.edu

Dr. Bill Fagan, Professor, Department of Biology, University of Maryland

Bill Fagan Lab, Principle Investigator

301-405-4672

bfagan@umd.edu

Dr. Corey Garza, Associate Professor, School of Natural Science, California State University Monterey Bay

Marine Landscape Ecology Lab, Principle Investigator

831-582-3024

cogarza@csUMB.edu

Dr. Michael Navarro, Assistant Professor of Marine Fisheries, University of Alaska Southeast

monavarro@alaska.edu