Woods Hole Oceanographic Institution 2022 Summer Student Fellows Research Projects

Muhammad Haikal Ezhar bin Abu Bakar, University of Colorado Boulder Last Millennium Reconstruction of Thermocline Variability in the Makassar Strait, Indonesia – Implications for Large Scale Winds Advisor: Delia Oppo, Geology and Geophysics

Annabella Amato, University of California, Los Angeles Net Community Production in the Subtropical North Atlantic: Modeling and Observations Advisors: David Nicholson and Hyewon Heather Kim, Marine Chemistry and Geochemistry

Cassandra Bartels, Barnard College of Columbia University Old, cold and sometimes far away: the Altiplano-Puna Magma Body and carbon release dynamics throughout the Central Volcanic Zone and the Andean Convergent Margin Advisors: Peter Barry and Sune Nielsen, Marine Chemistry and Geochemistry, and Geology and Geophysics

Jaida Buchanan, University of Massachusetts Amherst Shortfin Mako Shark Habitat Suitability within Offshore Wind Farms Advisor: Camrin Braun, Biology

Kayla Cayemitte, Ursinus College *Ramicrusta: The New Threat to Corals in the Caribbean* Advisor: Amy Apprill, Marine Chemistry and Geochemistry

Jean Clemente, Bowdoin College Timing the Paleozoic oxygenation of the deep ocean using thallium isotopes Advisors: Sune Nielsen and Peter Barry, Geology and Geophysics, and Marine Chemistry and Geochemistry

Ashley De La Torre, University of California, Davis *Comparative study* (Fundulus heteroclitus *and* Danio rerio): *Exploring the role of AIP in early life stages* Advisor: Mark Hahn, Biology

Rachel Einecker, Arizona State University *Iron Cycling May Lower Methane Fluxes at an Impounded Marsh: Evidence from the Herring River Estuary* Advisor: Meagan Eagle, U.S. Geological Survey

Ryan Galusha, California Polytechnic State University *Rapid Prototyping and Low-Cost Sensor Development* Advisor: Matthew Long, Marine Chemistry and Geochemistry

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Rohan Gowda Thanh Quang, Pomona College

Assessing the economic potential for a mesopelagic fishery as an additional source of fishmeal for global aquaculture Advisor: Di Jin, Marine Policy Center

Audrey Grimes, Middlebury College *Observing Spatial Variability of Offshore Wind Patterns in the Cape Cod Region* Advisor: Anthony Kirincich, Physical Oceanography

James Heiser, University of Tampa Immune Responses of a Mud Crab Host to a Novel Body-Snatching Parasite Advisor: Carolyn Tepolt, Biology

Prajna Jandial, Vellore Institute of Technology *Quantifying Noise Response of Squid Schools* Advisor: Yogesh Girdhar, Applied Ocean Physics and Engineering

Namitha Kumar, University of Michigan Determining the Strength of the Oceanic Crust: A Geochemical and Microstructural Investigation of ODP Hole 735B, Southwest Indian Ridge Advisor: Veronique Le Roux and Andrew Cross, Geology and Geophysics

Lilian Lucas, University of Illinois at Urbana-Champaign *Geological mapping in the deep ocean using structure-from-motion photogrammetry* Advisors: Uri ten Brink and Jason Chaytor, U.S. Geological Survey

Helena Lyng-Olsen, Yale University Determining the Economic Viability of Ocean-Based Carbon Dioxide Removal with Seaweed Farms Advisor: Hauke Kite-Powell and Yaqin Liu, Marine Policy Center

Guransh Mann, University of Arizona Elevator Controls for an Autonomous Underwater Glider Advisor: Richard Camilli, Applied Ocean Physics and Engineering

Alexis Mullen, Bowdoin College Uncovering Circulatory Pathways in the Indian Ocean: Investigating the Pathways of Red Sea Overflow Waters to the South Atlantic Advisor: Viviane Menezes, Physical Oceanography

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Kimberly Nuñez, Macaulay Honors College at John Jay College of Criminal Justice Determining Changes in Benthic Community Structure at HAUSGARTEN I 2008-2018 Advisor: Kirstin Meyer-Kaiser, Biology

Nimrod Rozen, University of Victoria

A Deeper View of the North-Pacific: Transport and Spreading Pathways at 1000 Metres According to Argo Advisors: Irina Rypina, Alison Macdonald and Sachiko Yoshida, Physical Oceanography

Jack Ryan, University of Massachusetts Lowell REMUS Vehicle Oil Compensation Systems Advisor: Carl Hartsfield, Applied Ocean Physics and Engineering

Ashley Schefler, Haverford College

Oxygen Minimum Zones in the California and Humboldt Upwelling Systems Linked to Hadley Circulation Advisor: Caroline Ummenhofer, Physical Oceanography

Madeline Sowinski, Hamline University

Comparison of ICESat-2 and SMOS Sea Ice Thickness in the Ross Sea Advisor: Ted Maksym, Applied Ocean Physics and Engineering