**School of Natural Sciences**

**SPRING 2017 CAPSTONE FESTIVAL**

**Thursday, May 18, 2017**

**9:00am - 5:00pm**

**Tanimura & Antle Family Memorial Library, Room 1188**

**9:00 - 9:05 ~ Welcome**

* **Dr. Suzy Worcester**, Chair, School of Natural Sciences

**ORAL PRESENTATIONS**

**Marine Science - 9:05 - 10:25**

* ***Effects of hypoxia and ocean acidification on larval brown rockfish gene expression***

**Presenters:** Jacob Green, Kaitlyn Hurley, Matt Lindeman, Melissa Meredith, Vanessa Poon, Isaac Rodriguez, Courtney Thomsen, Samantha Wilson, Brandy Ziriax

**Advisor:**  Cheryl Logan

* ***Biogenic Habitat Associations of Lingcod, Kelp Greenling and Rockfish in Oregon's Redfish Rocks Marine Protected Area***

**Presenters:** Libbie Duskin, Elisabeth King, Maritza Martin, JT Robinson, Candace Ryan, Ashley Wemp, Dagny Ysais

**Advisor:**  James Lindholm

* ***Subtidal site characterization for proposed Cannery Row desalination plant***

**Presenters:**  Lauren Adagio, Christopher Koski, Brandon Morales, Dominic Rodricks, Karla Trigueros

**Advisor:**  Steve Moore

* ***Abalonely: Assessment of black abalone recovery in Monterey Bay***

**Presenters:** Sarah Collins, Kaelyn De Young, Andrew Diehl, Steven Eikenbary, Kendall Emerick, Marlies Herter, Brandy Little, Tishma Patel, Sarah Patterson, Michelle Pournia, Auston Rutledge, Jose Salazar, Karah Silacci, Evan Smith

**Advisor:**  Alison Haupt

**10 min break**

**Environmental Science, Technology & Policy - 10:35 - 11:35**

* ***San Clemente Dam Removal: Modeling Steelhead Migration in Year Two***

**Presenters:**  Tianxin Wang, Alixandra Rachman, Joey Klein, Alejandra Reyes

**Advisor:**  Doug Smith

* ***Quantitative analysis of benthic macroinvertebrates to indicate stream health responses to wildfire***

**Presenters:**  Karina Abou-chakra, Eric Gentry, James Green, Jessica Haasch, Jessica Jimenez,  Kyler Johnson, Levi Matsushima, Madeline McCuen, Adam Sanchez, Becca Troske

**Advisor:**  John Olson

* ***Exploring Conceptual Understanding in Chemistry Courses at CSU Monterey Bay***

**Presenter:**  Kevin Critchlow

**Advisors:**  Jon Detka & Corin Slown

* ***Factors Influencing Student Success in Lower Division Chemistry Courses at CSUMB***

**Presenter:**  Christopher Hart

**Advisors:**  Jon Detka & Corin Slown

**10 min break**

**Biology** - **11:45-1:00**

* ***Mitochondrial genome sequencing and the development of molecular tools for plant pathogenic Rhizoctonia species***

**Presenter:** Juan Cerda

**Advisors:** Timothy Miles & Charmaine Robinson

* **Detection of fungicide-resistant *Pseudoperonospora cubensis* isolates using molecular techniques.**

**Presenter:** Aidan Shands

**Advisors:** Timothy Miles & Charmaine Robinson

* ***Small mammal behavioral responses to the scent of domestic dogs***

**Presenter:** Adriane Baade

**Advisors:** Charmaine Robinson & Jenny Duggan

* ***Development of Generative Adversarial Networks for Creation of Novel Protein Sequences***

**Presenter:** Charles Farber

**Advisors:** Nathaniel Jue & Charmaine Robinson

* ***Bicarbonate Buffering of Dental Anesthetics***

**Presenter:**  Lisa Fredenberg

**Advisors:**  John Goeltz & Charmaine Robinson

**Lunch 1:00-1:30**

**Environmental Studies** - **1:30-2:00**

* ***Monterey Peninsula Regional Park District Climate Change Survey***

**Presenter:**  Anna Henning

**Community Partner:** Monterey Peninsula Regional Park District

* ***Assessment of Monterey Stormwater Waste***

**Presenter:**  Eric Reynolds

**Community Partner:** The Offset Project

* ***Surveying Single-use Plastics in Monterey Peninsula Hotels***

**Presenters:**  Morgan Fisher and Corin Nunnelley

**Community Partner:** Monterey Bay Aquarium

**POSTERS**

**2:00 - finish**

**Biology**

* ***Mitochondrial genome sequencing and the development of molecular tools for plant pathogenic Rhizoctonia species***

**Presenter:** Juan Cerda

**Advisors:** Tim Miles & Charmaine Robinson

* **Detection of fungicide-resistant *Pseudoperonospora cubensis* isolates using molecular techniques.**

**Presenter:** Aidan Shands

**Advisors:** Tim Miles & Charmaine Robinson

* ***Investigating macroscopic fungal communities in the Fort Ord National Monument***

**Presenter:**  Christopher Moran

**Advisor:**  Tim Miles

* ***Small mammal behavioral responses to the scent of domestic dogs***

**Presenter:** Adriane Baade

**Advisors:** Charmaine Robinson & Jenny Duggan

* ***Determination of Bacterial Colonization of Woodchip Denitrifying Bioreactors Using Different Wavelengths for Turbidity Measurement***

**Presenter:** Alyson Carpenter

**Advisors:** Arlene Haffa, John Silveus, & Charmaine Robinson

* ***Development of Generative Adversarial Networks for Creation of Novel Protein Sequences.***

**Presenter:** Charles Farber

**Advisors:** Charmaine Robinson, Nate Jue, Arthur Rand, & Mark Akeson

* ***Bicarbonate Buffering of Dental Anesthetics***

**Presenter:** Lisa Fredenberg

**Advisors:** John Goeltz & Charmaine Robinson

* **RNA interference (RNAi) control of whitefly, *Bemisia tabaci* MEAM1**

**Presenter:** Cecilia Garcia

**Advisor:** William Wintermantel

* ***Alepisaurus ferox:* A biological sampler of rare micronekton in the Central North Pacific**

**Presenter:** Julia Karo

**Advisors:** Charmaine Robinson

* ***Do Monthly Temperature Changes Alter Blue Rockfish Behavior***

**Presenter:** Robert Moyneur

**Advisors:** Charmaine Robinson & Jody Beers

* ***Using Microbial Fuel Cells to Evaluate the Electrical Potential of the Molera Wetland and Two Woodchip Mediums from the CSUMB Bioreactor***

**Presenter:** Kali Prescott

**Advisors:** Arlene Haffa & Charmaine Robinson

* ***Gimme Shell-ter:******Are Tide Gates a Refuge for Native Mussels in a Hybrid Zone?***

**Presenter:** Kelly Takeda

**Advisor:** Henrik Kibak & Charmaine Robinson

* ***A Diet for a Dry Planet***

**Presenter:**  Kaitlynn Thompson

**Advisors:**  Charmaine Robinson & John Goeltz

* ***Identification of Denitrifying Bacteria in Bioreactors at CSUMB used for Removal of Nitrates in Agricultural Runoff***

**Presenters:**  Denise Paciotti, Adrianna Arreola, Aileen Arreola, Iris Rivera, Brianne Shea, Andre Shabazian, Samuel Cude, Elise Vickland

**Advisor:**  Jenn Kato

* ***Diversity Comparison of Denitrifying Bacteria between the CSUMB Woodchip, Bioball, and Ceramic Bioreactors***

**Presenters:**  Melia Susilowati, Victoria Montoya, Jazmine Ahumada, Tiffany Lee

**Advisor:**  Jenn Kato

* ***Identification of Nitrate Reducing Bacteria from California State University, Monterey Bay Bioreactors***

**Presenters:**  Kevin Luong, Oscar Pioquinto, Yasmine Santos, Katia Pardo Ortiz, Kirstyn Nimmers

**Advisor:**  Jenn Kato

* ***Nitrate reducing bacteria in Wood Bioreactors compared to Bioballs Bioreactors from California State University, Monterey Bay***

**Presenters:**  Kevin Lares, Silvia Casillas-Fernandez, Victoria Thornton, Nancy Mendoza, Courtney Yarber

**Advisor:**  Jenn Kato

**Environmental Science, Technology & Policy**

* ***San Clemente Dam Removal: Modeling Fish Passage in Year Two***

**Presenters:**Justin Bolger, Zane Mortensen, Stephen Georgianni, Max Hofmarcher, Brittany Venlet

**Advisor:**  Doug Smith

* ***Quantitative analysis of benthic macroinvertebrates to indicate stream health responses to wildfire***

**Presenters:**  Adam Sanchez, Becca Troske, Eric Gentry, James Green, Jessica Haasch, Jessica Jimenez, Karina Abou-chakra, Kyler Johnson, Levi Matsushima, Madeline McCuen

**Advisor:**  John Olson