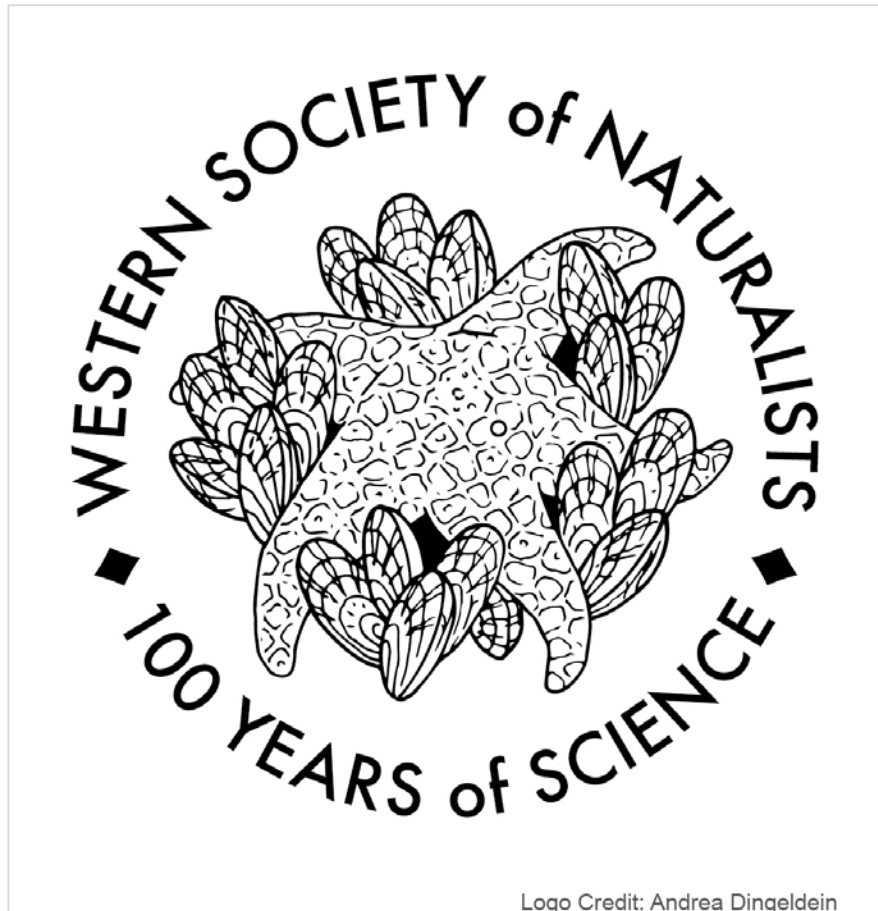


**100<sup>th</sup> Anniversary**  
**Western Society of**  
**Naturalists**  
**Meeting Program**



**Monterey, CA**  
**November 10–13, 2016**



# Western Society of Naturalists

~ 2016 ~

## *President*

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## **97<sup>TH</sup> ANNUAL MEETING NOVEMBER 10–13, 2016 IN MONTEREY, CALIFORNIA**

### **Registration and Information**

Welcome! **The registration desk will be open Thurs 1700-2000, Fri-Sat 0730-1800, and Sun 1000-1300.** Registration packets will be available at the registration desk for attendees who have pre-registered. Those who have not pre-registered but wish to attend the meeting can pay for membership and registration (with a late fee of \$25 Student/ \$40 Regular) at the registration desk. **Unfortunately, tickets for the Saturday night buffet dinner cannot be sold at the meeting because the hotel requires final counts of attendees well in advance.** The Attitude Adjustment Hour (AAH) is included in the registration price, so you will only need to show your badge or guest AAH ticket for admittance to the Monterey Bay Aquarium. WSN T-shirts and other merchandise can be purchased or picked up at the WSN Student Committee table.

**Breakfast & lunch purchases are available at the hotel** (see pg.4). A partial list of restaurants near the Hyatt Regency Monterey Hotel can also be found on the inside back cover (pg.46).

### **Celebrating 100 years of the Western Society of Naturalists!**

This year's Annual Meeting will feature many special events including a student workshop on science communication, the return of the AAH to the Monterey Bay Aquarium, symposia to explore the role and future of natural history, and a gala event on Saturday night including a buffet dinner, Presidential address, auction, live music and more! In addition, the meeting will offer over 500 contributed talks and posters, and special plenary talks from Mike Foster and Jim Estes.

### **Thanks to Student Travel Fund Donors**

We are grateful to all of you who made donations to the Student Travel Fund when you registered; those funds are greatly appreciated by our many student members. Thank you!

## **SCHEDULE AT A GLANCE: MAIN EVENTS**

### **THURSDAY, NOVEMBER 10, 2016**

- 1900-2100 STUDENT WORKSHOP (Pre-registration required; Regency Ballroom)  
*"STORY ART FOR SCIENCE COMMUNICATION"*  
2100 STUDENT MIXER. Casual, no-host get together (*Knuckles Sports Bar*)

### **FRIDAY, NOVEMBER 11, 2016**

- 0800-1000 STUDENT SYMPOSIUM (Regency Ballroom)  
*"COMMUNICATING THE VALUE OF NATURAL HISTORY THROUGH EXPLORATION AND DISCOVERY"*
- 1030 RAFF SAGARIN FUND FOR INNOVATIVE ECOLOGY  
(by Ben Halpern, Danielle Zacherl)
- 1045 NATURALIST OF THE YEAR AWARD: JACKIE SONES (by Karina Nielsen)
- 1050 WSN NATURALIST OF THE YEAR (Jackie Sones)
- 1115 LIFETIME ACHIEVEMENT AWARD: MIKE FOSTER (by Dan Reed)
- 1130 *"THE WESTERN SOCIETY OF NATURALISTS: 100 YEARS OF NATURALISM AND ATTITUDE ADJUSTMENT"* (Mike Foster)
- 1200-1315 LUNCH (available for purchase in the Regency Foyer, see pg.4)
- 1315-1800 CONTRIBUTED PAPERS (Regency Ballroom ABC, Big Sur, Cypress, Spyglass, Windjammer)
- 1815 FIRST BUSES DEPART HOTEL FOR AQUARIUM (Running continuously)
- 1930-2230 ATTITUDE ADJUSTMENT HOUR (AAH) AT MONTEREY BAY AQUARIUM
- 2315 LAST BUS DEPARTS FROM AQUARIUM TO HOTEL

### **SATURDAY, NOVEMBER 12, 2016**

- 0800-1000 PRESIDENTIAL SYMPOSIUM (Regency Ballroom)  
*"THE FUTURE OF NATURAL HISTORY: THE ROLE AND RELEVANCE OF NATURAL HISTORY IN THE 21<sup>ST</sup> CENTURY"*
- 1030-1200 CONTRIBUTED PAPERS (Regency Ballroom ABC, Big Sur, Cypress, Spyglass, Windjammer)
- 1200-1315 LUNCH (available for purchase in the Regency Foyer, see pg.4)
- 1315-1745 CONTRIBUTED PAPERS (Regency Ballroom ABC, Big Sur, Cypress, Spyglass, Windjammer)
- 1800-1900 ANNUAL BUSINESS MEETING (Spyglass Room)
- 1930-2130 PRESIDENTIAL BUFFET AND ADDRESS: Jay Stachowicz (Regency Ballroom)
- 2130-2400 UNDERSEA GALA: WSN AUCTION, LIVE MUSIC, and ENTERTAINMENT (Regency Ballroom)

## **SUNDAY, NOVEMBER 13, 2016**

- 0800-0845 POSTER SET-UP FOR PRESENTERS\* (Monterey Ballroom)  
\*Please have your poster on display by no later than 08:45
- 0830-1000 WSN BRUNCH (Monterey Terrace)
- 0900-1200 WSN POSTER SESSION (Monterey Ballroom)
- 1200-1300 LUNCH (available for purchase in the Regency Foyer)
- 1300-1430 CONTRIBUTED PAPERS (Regency Ballroom ABC, Big Sur, Cypress, Spyglass, Windjammer)
- 1500-1600 PLENARY SPEAKER (Regency Ballroom)  
*Jim Estes. "ADVENTURES IN NATURE AND PATHWAYS TO ECOLOGICAL UNDERSTANDING"*
- 1600-1630 BOOK SIGNING: Your chance to purchase a signed copy of Jim's new book!  
*("Serendipity: An Ecologist's Quest to Understand Nature," UC Press, 2016)*

### **100<sup>th</sup> ANNIVERSARY SPECIAL TOPICS:**

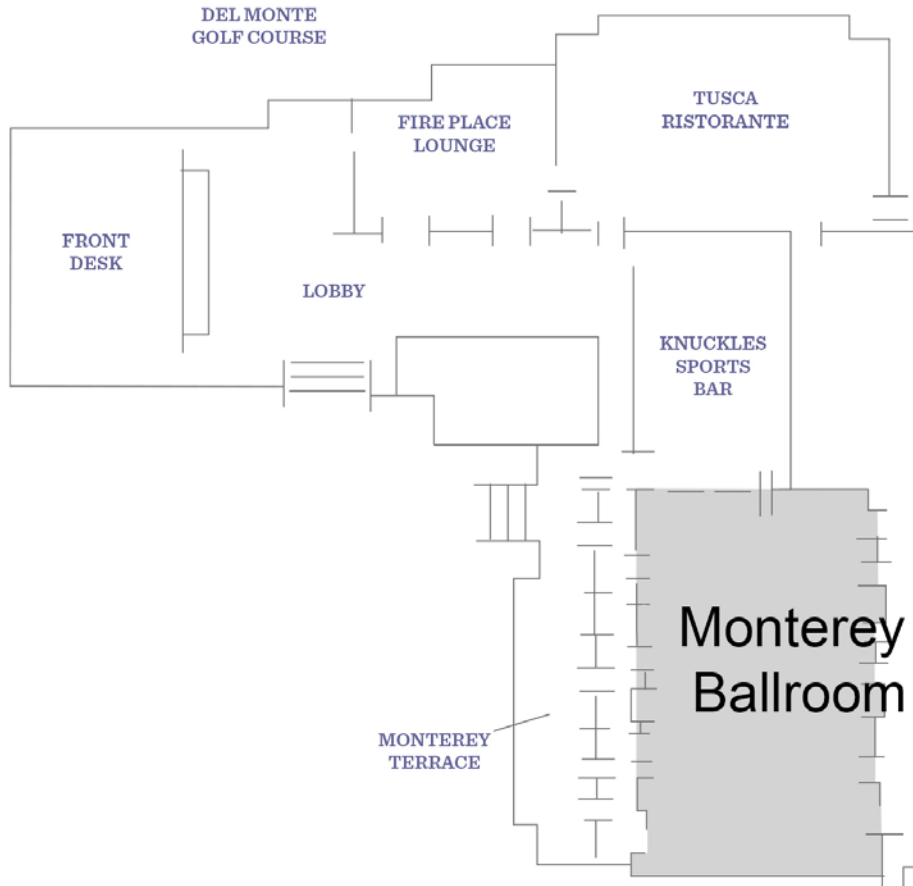
Alongside our usual range of topics, the 2016 meeting will also include sessions of contributed talks focused on nine **Special Topics**. For a summary of these sessions, please see the last page of the program (p.45).

### **A NOTE ON MEAL OPTIONS:**

**BREAKFAST: 7:00 to 8:30am** (FRI, SAT). A variety of pastries, fruit, oatmeal, yogurt, and breakfast sandwiches will be available for "grab and go" purchase in the Regency Ballroom Foyer at reasonable prices. There are no restaurants other than the ones in the hotel within easy walking distance, so we encourage you to take advantage of this option.

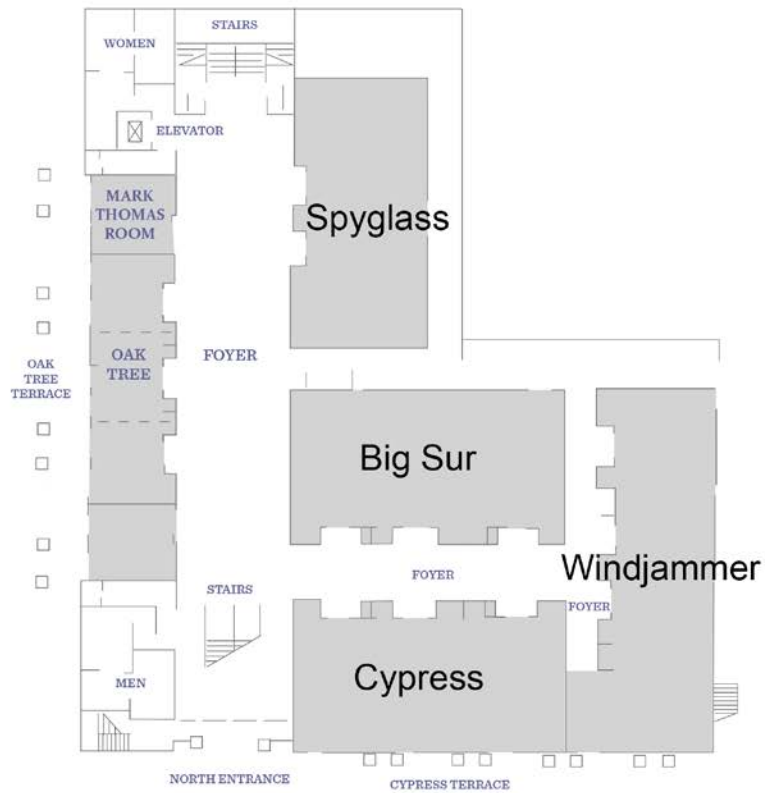
**LUNCH: 12:00 to 1:15pm** (FRI, SAT, SUN). The hotel will sell salads, cold sandwiches, and a selection of hot items (soup, pizza, and possibly hot dogs or hamburgers) at reasonable prices in the Regency Ballroom Foyer. There are no restaurants other than the ones in the hotel within easy walking distance, so we encourage you to take advantage of this option. There will be tables and chairs set up so that you can enjoy lunch without the rush and hassle of trying to find lunch away from the hotel.

# Hotel Floorplan (main hotel area)

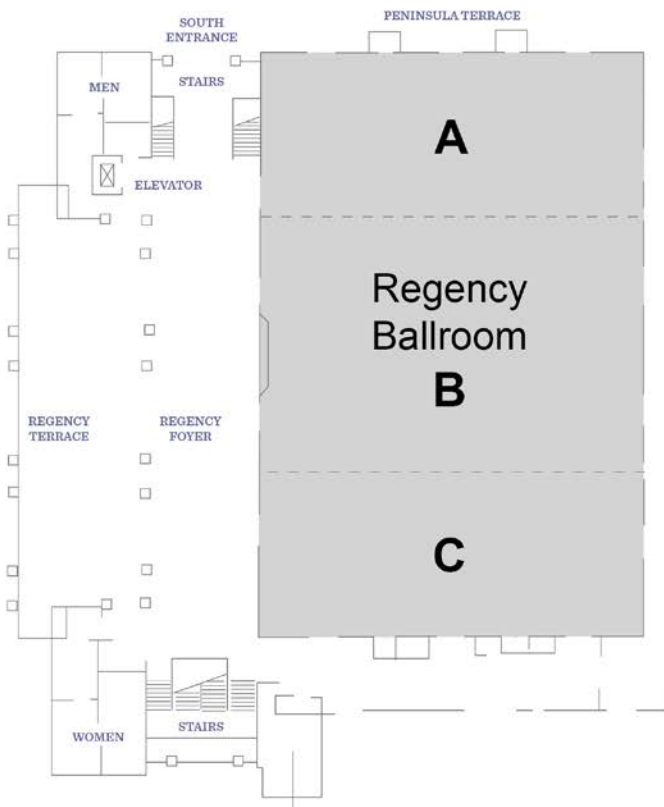


# Hotel Floorplan (conference center)

FIRST FLOOR



SECOND FLOOR



**THURSDAY, NOVEMBER 10, 2016**

**STUDENT WORKSHOP and MIXER**

**1900-2100 STUDENT WORKSHOP**

**REGENCY BALLROOM**

*“STORY ART FOR SCIENCE COMMUNICATION”*

We are very excited about this year’s student workshop, which will teach science communication skills using storytelling strategies from filmmaking. Story artists who work at Pixar Animation Studios will share techniques that filmmakers use to construct a story and to translate that story into visual form. A working group session will help participants begin to outline their own scientific stories using these techniques. Adapting story art strategies for science communication can be transformative for researchers at all levels, and while this workshop is student-focused, we encourage participation by any and all WSN attendees (pre-registration required).

**PANELISTS:**

**Sara EIShafie**, *Ph.D. Candidate, UC Berkeley*

**Daniel McCoy**, *Technical Supervisor, Pixar Animation Studios*

**2100 STUDENT MIXER at *Knuckles Sports Bar*, Hyatt Regency Monterey Hotel**



**FRIDAY, NOVEMBER 11, 2016**

**STUDENT SYMPOSIUM (0800-1000)**

**REGENCY BALLROOM**

***“COMMUNICATING THE VALUE OF NATURAL HISTORY THROUGH  
EXPLORATION AND DISCOVERY”***

- 0800 **INTRODUCTION** (Breck McCollum, WSN Student Committee)
- 0815 **Jennifer Caselle**, *UC Santa Barbara*  
SCIENCE AND STORYTELLING: THE UNIVERSAL HOOK FOR OUR OCEANS
- 0835 **Craig Young**, *Oregon Institute of Marine Biology, University of Oregon*  
OLD-FASHIONED ZOOLOGIZING WITH EXPENSIVE TOYS: COMMUNICATING THE  
EXCITEMENT OF DEEP-OCEAN SCIENCE
- 0855 **James Barry**, *Monterey Bay Aquarium Research Institute*  
NATURAL HISTORY NO MORE – COMMUNICATING THE CHALLENGES FOR  
MARINE LIFE IN A CHANGING OCEAN
- 0915 **Luiz Rocha**, *California Academy of Sciences*  
INTO THE TWILIGHT ZONE: USING SCIENTIFIC EXPLORATION TO INSPIRE  
CONSERVATION
- 0935 **PANEL DISCUSSION**
- 1000 **COFFEE BREAK**
- 1030 **RAFE SAGARIN FUND FOR INNOVATIVE ECOLOGY**  
(by Ben Halpern, Danielle Zacherl)
- 1045 **NATURALIST OF THE YEAR AWARD: JACKIE SONES** (by Karina Nielsen)
- 1050 **WSN NATURALIST OF THE YEAR** (Jackie Sones, Bodega Marine Reserve)
- 1115 **LIFETIME ACHIEVEMENT AWARD: MIKE FOSTER** (by Dan Reed)
- 1130 **Mike Foster**, *Moss Landing Marine Laboratories*  
THE WESTERN SOCIETY OF NATURALISTS: 100 YEARS OF NATURALISM AND  
ATTITUDE ADJUSTMENT
- 1200-1315 **LUNCH** (available for purchase in the Regency Foyer, see pg.4)
- 1315-1800 **CONTRIBUTED PAPERS** (Regency Ballroom ABC, Big Sur, Cypress, Spyglass,  
Windjammer)
- 1815 **FIRST BUSES DEPART FOR AQUARIUM** (Running continuously)
- 1930-2230 **ATTITUDE ADJUSTMENT HOUR (AAH) AT MONTEREY BAY AQUARIUM**
- 2315 **LAST BUS DEPARTS FROM AQUARIUM TO HOTEL**

FRIDAY, NOV 11		1315-1530		† eligible for Best Student Paper Award	
Time	Session 1: BALLROOM A	Session 2: BALLROOM B	Session 3: BALLROOM C	Session 4: BIG SUR	
	Evaluating MPAS I Chair: Barron, A	Top- Down Control I Chair: Harley, CDG	Community Ecology I Chair: Allen, BJ	Reproduction, Dispersal, Recruitment I Chair: Hadfield, MG	
1315	<b>Barron, A.</b> DARE TO BE DEEP: MONITORING PROGRESS ON NORTH AMERICA'S MARINE PROTECTED AREAS (MPAS)	<b>Ruesink, J.L.</b> TOP-DOWN CONTROL AS A FUNCTION OF BIODIVERSITY?	<b>Allen, B.J.</b> TEMPORAL VARIATION IN MECHANISMS DRIVING NE BIODIVERSITY-PRODUC RELATIONSHIP IN A RESTORED COASTAL WETLAND	<b>Hadfield, M.G.</b> THE BACTERIAL BASIS OF LARVAL SETTLEMENT	
1330	<b>Calvanese, T</b> MOVEMENT PATTERNS OF FISHES OF REDFISH ROCKS MARINE RESERVE	<b>Suchanek, T.H.</b> REVISITING PAINE'S 1966 SEA STAR REMOVAL EXPERIMENT, THE MOST-CITED EMPIRICAL ARTICLE IN THE AMERICAN NATURALIST	<b>Janousek, C.</b> A BIOGEOGRAPHIC PERSPECTIVE ON ZONATION AND SPECIES RICHNESS IN MARSH PLANTS OF THE PACIFIC COAST	<b>Ewers-Saucedo, C.</b> WHATEVER FLOATS YOUR BOAT? THE POTENTIAL FOR ADAPTATION AND PHYLOGENETIC CONSTRAINT IN BARNACLE LARVAE	
1345	<b>Johnson, D.W.</b> LARVAL CONNECTIVITY AND PERSISTENCE OF A MARINE FISH METAPOPULATION: IMPLICATIONS FOR DESIGNING NETWORKS OF MARINE PROTECTED AREAS	<b>Bracken, M.E.S.</b> COMPLEX TOP-DOWN AND BOTTOM-UP EFFECTS OF GRAZERS ON ROCKY SHORES	<b>†Morton, J.P.</b> PARASITES ENHANCE ECOSYSTEM FUNCTIONS AND RESISTANCE TO DROUGHT IN A COASTAL ECOSYSTEM	<b>†Bashevkin, S.M.</b> PIGMENTATION IN THE PLANKTON: TRADE- OFFS IN COLORATION FOR MARINE LARVAE	
1400	<b>Chiu, J.A.</b> LESSONS FROM 10 YEARS OF COLLABORATIVE FISHERIES RESEARCH IN MPAS	<b>Gravem, S.A.</b> MECHANISMS DRIVING RESISTANCE AND RESILIENCE TO COMMUNITY CHANGE AFTER THE SEA STAR WASTING DISEASE OUTBREAK	<b>Arenas, A.</b> IMPACTS OF INVASIVE TAMARIX AND ITS REMOVAL ON THE INVERTEBRATE COMMUNITY IN TIJUANA ESTUARY	<b>†Bergman, J.L.</b> THE EFFECTS OF OCEAN ACIDIFICATION ON THE PHYSIOLOGY AND BEHAVIOR OF BROODED CORAL LARVAE IN OKINAWA, JAPAN	
1415	<b>†Comet, S. M.</b> INFORMING OREGON'S MARINE PROTECTED AREA (MPA) BASELINE: PAST AND PRESENT TRIBAL USES OF MARINE RESOURCES	<b>Eckert, G.L.</b> APEX PREDATORS, ECOSYSTEMS, AND COMMUNITY SUSTAINABILITY (APECS) IN COASTAL ALASKA	<b>Petrelli, A.R.</b> MORRO BAY AVIAN COMMUNITY SHIFT ASSOCIATED WITH EELGRASS COLLAPSE	<b>†Lizárraga, D.M.</b> LOW CONCENTRATIONS OF LARGE INEDIBLE PARTICLES REDUCE FEEDING RATES OF ECHINODERM LARVAE	
1430	<b>Van Diggelen, A.D.</b> LINKING SCIENCE TO MANAGEMENT: ESTABLISHING A BASELINE OF CONDITIONS IN CALIFORNIA'S SOUTH COAST REGION	<b>Wulff, J.L.</b> TOP-DOWN CONTROL OF CORAL REEF SPONGES: NATURAL HISTORY DETAILS DISTENTANGLE WITHIN- VS. BETWEEN-HABITAT PATTERNS AND PROCESSES	<b>†Valentine, M.M.</b> DOES THE FUNCTIONAL DIVERSITY OF TROPICAL SPONGE COMMUNITIES MATTER FOR WATER COLUMN OUTPUT CHARACTERISTICS?	<b>Pineda, J.</b> INFERRING LARVAL TRANSPORT FROM HIGH RESOLUTION PHYSICAL MEASUREMENTS AND SETTLEMENT DATA	

FRIDAY, NOV 11 1315-1530 † eligible for Best Student Paper Award			
Time	Session 5: CYPRESS Applied Ecology I Chair: Granek, E	Session 6: SPYGLASS Coralline Algae Chairs: Gabrielson, PW & PT Martone	Session 7: WINDJAMMER Conservation Technologies Chair: Anderson, Sean
1315	†Horn, D.A. PERVASIVE PLASTICS: A NEW CHALLENGE FOR CRABS AND OUR SANDY BEACH ECOSYSTEM	Gabrielson, P.W. SYSTEMATICS AND BIOGEOGRAPHY OF THE NORTHEAST PACIFIC CORALLINE ALGAL FLORA: LOCAL CHANGES, GLOBAL IMPLICATIONS	McKown, M.W. SENSOR NETWORKS, DRONES AND ARTIFICIAL INTELLIGENCE: ADVANCING EVIDENCE- BASED CONSERVATION
1330	Steele, C.L.W. ECOLOGICAL IMPACTS OF MICROPLASTIC DEBRIS IN TROPICAL AND TEMPERATE SANDY BEACH ECOSYSTEMS	Hind, K.R. CORALLINE ALGAL COMMUNITY STRUCTURE: HOW BARREN ARE URCHIN BARRENS?	Wendt, C.A. REMOTE RESEARCH ON A BUDGET: DESIGNING VIDEO SYSTEMS FOR RESEARCH IN THE ULITHI ATOLL
1345	†Ehrhart, A.L. TESTING THE WATERS: INVESTIGATING EFFECTS OF WASTEWATER CONTAMINANTS ON A COMMERCIALY HARVESTED BIVALVE, THE PACIFIC OYSTER	McCoy, S.J. SHIFTING STRENGTHS OF SPECIES INTERACTIONS IN A GUILD OF CRUSTOSE CORALLINE ALGAE REINTERPRETED WITH RESTRUCTURED SYSTEMATICS	†Kibele, J.D. MORE-MAPS: AN INTEGRATED SYSTEM FOR EFFICIENT LOW COST MAPPING OF SUBMERGED HABITATS
1400	Granek, E. F. SEASONAL AND SPATIAL VARIABILITY IN CONTAMINANT CONCENTRATIONS OF OLYMPIA OYSTERS	Martone, P.T. THE RISE AND FALL OF CORALLINE ALGAE: EVOLUTIONARY TRANSITIONS BETWEEN CRUSTOSE AND ARTICULATED MORPHOLOGIES	Goldberg, E.G. SEASKETCH SURVEYS ENABLE THE COLLECTION OF VOLUNTEERED GEOGRAPHIC INFORMATION IN MARINE PLANNING CONTEXT
1415	Marraffini, M.L. TUNICATE DEATH SQUAD: POTENTIAL ERADICATION TECHNIQUES FOR <i>DIDEMNUM VEXILLIUM</i> (KNOTT 2002) IN SITKA, AK	Denny, M.W. CHARACTERIZING A KEY ADAPTATION: THE EXTRAORDINARY JOINT MATERIAL OF CORALLINE ALGAE	†Tuttle, L.J. DIRECT AND INDIRECT EFFECTS OF INVASIVE LIONFISH ON CORAL- REEF CLEANING MUTUALISTS
1430	†Marks, L.M. LIFE HISTORY OF THE INVASIVE SEAWEED <i>SARGASSUM HORNERI</i>		Johnson, R.F. SNAPSHOT CAL COAST: MOBILIZING COMMUNITY MEMBERS TO DOCUMENT SPECIES RANGES ALONG THE CALIFORNIA COAST

FRIDAY, NOV 11		1315-1530		† eligible for Best Student Paper Award	
Time	Session 1: BALLROOM A Evaluating MPAS I Chair: Barron, A	Session 2: BALLROOM B Top- Down Control I Chair: Harley, CDG	Session 3: BALLROOM C Community Ecology I Chair: Allen, BJ	Session 4: BIG SUR Reproduction, Dispersal, Recruitment I Chair: Hadfield, MG	
1445	<b>Benjamin, N.S.</b> USING REMOTELY OPERATED VEHICLES TO ASSESS MARINE PROTECTED AREA EFFECTIVENESS IN DEEPWATER	<b>Kindinger, T.L.</b> INVASIVE MARINE PREDATOR ALTERS COMPETITION BETWEEN NATIVE CORAL-REEF FISHES	<b>†Sadowski, J.S.</b> THE INFLUENCE OF BIOLOGICAL INVASIONS AND CLIMATE CHANGE ON NON-CONSUMPTIVE EFFECTS	<b>†Salant, C.D.</b> SURFZONE HYDRODYNAMICS ALTER PHYTOPLANKTON SUBSIDIES AFFECTING REPRODUCTIVE OUTPUT OF <i>MYTILUS CALIFORNIANUS</i> AND <i>BALANUS GLANDULA</i>	
1500	<b>Garrabou, J.</b> ARE MARINE PROTECTED AREAS EFFECTIVE TO COPE WITH THE EFFECTS OF CLIMATE CHANGE IN TEMPERATE ROCKY MARINE BENTHIC ECOSYSTEMS?	<b>Hughes, B.B.</b> TOP PREDATOR RECOVERY SUPPRESSES DIE-BACK OF SHORELINE-PROTECTING SALT MARSHES THROUGH A TROPHIC CASCADE	<b>Neeb Wade, P.A.</b> THE EFFECT OF A NON-NATIVE SPECIES ON JUVENILE OLYMPIA OYSTERS IN THE ELKHORN SLOUGH ESTUARY	<b>Emlet, R.B.</b> WINTER MEROPLANKTON ALONG THE OREGON COAST WHO SPAWNS AND WHY; WHO ELSE IS THERE	
1515	<b>Waltz, G.T.</b> EXAMINING THE CORELATION BETWEEN TEMPERATURE AND CATCH RATES OF BLUE ROCKFISH ( <i>S. MYSTINUS</i> ) IN CALIFORNIA MARINE PROTECTED AREAS	<b>†Rogers, T.L.</b> REVISITING PAINE'S GASTROPODS: CAUSES AND CONSEQUENCES OF HISTORICAL MULTI-TROPHIC DIVERSITY CHANGE IN AN INTERTIDAL SEAGRASS BED	<b>†Hintz, M.H.</b> TEMPORAL AND SPATIAL DISTRIBUTION OF OLYMPIA OYSTER ( <i>OSTREA LURIDA</i> ) EARLY LIFE HISTORY IN PUGET SOUND, WA	<b>Shanks, A.L.</b> OCEAN CONDITIONS AND WINTER SPAWNING OF INTERTIDAL INVERTEBRATES	
1530	<b>BREAK</b>	<b>BREAK</b>	<b>BREAK</b>	<b>BREAK</b>	
Time	Session 9: BALLROOM A Evaluating MPAS II Chair: Saarman, ET	Session 8: BALLROOM B Top-Down Control II Chair: Ruesink, JL	Session 10: BALLROOM C Community Ecology II Chair: Jurgens, LJ	Session 11: BIG SUR Reproduction, Dispersal, Recruitment II Chair: Koehl, MAR	
1600	<b>Staton, J.M.</b> HABITAT AND SPATIAL DRIVERS OF ROCKY REEF ASSOCIATED FISH ABUNDANCE AND DIVERISY IN THE NORTH COAST MPA REGION	<b>Hovel, K.A.</b> PREDATION, HABITAT STRUCTURE, AND ECOSYSTEM FUNCTION: TESTING LINKAGES AND PARADIGMS IN SEAGRASS HABITAT	<b>Jurgens, L.J.</b> PREDATION ALTERS RESISTANCE TO CLIMATE DISTURBANCE IN A TROPICAL INVERTEBRATE COMMUNITY	<b>Koehl, M.A.R.</b> SWIMMING IN A TURBULENT WORLD	
1615	<b>†Kelmartin, I.D.</b> USING MAXENT AND COLLABORATIVE RESEARCH TO MODEL HABITAT SUITABILITY FOR NEARSHORE REEF FISHES IN NORTHERN CALIFORNIA	<b>†Wetmore, L.S.</b> WASTED SEA STARS AND HUNGRY SNAILS: COULD DISEASE EPIDEMICS HAVE CASCADING IMPACTS ON COASTAL KELP FORESTS?	<b>†Hawk, H.</b> SEA STARS CAN'T JUMP: FLOATING AS PREY REFUGES AND CONSEQUENCES FOR BIODIVERSITY	<b>Morgan, S.G</b> "ROBOT LARVAE" TEST THE EFFECTS OF BEHAVIOR ON LARVAL RETENTION AND TRANSPORT IN A STRONG, PERSISTENT UPWELLING REGIME	

FRIDAY, NOV 11 1315-1530 † eligible for Best Student Paper Award			
<b>Time</b>	<b>Session 5: CYPRESS</b> <b>Applied Ecology I</b> <b>Chair: Granek, E</b>	<b>Session 6: SPYGLASS</b> <b>Coralline Algae</b> <b>Chairs: Gabrielson, PW &amp; PT Martone</b>	<b>Session 7: WINDJAMMER</b> <b>Conservation Technologies</b> <b>Chair: Anderson, Sean</b>
<b>1445</b>	<b>†Wigginton, R.D</b> DOES DROUGHT RESULT IN A DIE-BACK OF INVASIVE <i>LEPIDIUM</i> <i>LATIFOLIUM</i> IN A SALT MARSH	<b>Barner, A.K.</b> BEYOND IDIOSYNCRASY IN OCEAN ACIDIFICATION RESEARCH: A CASE STUDY WITH CORALLINE ALGAE	<b>Kelly, R.P.</b> DEVELOPING ENVIRONMENTAL DNA AS A POLICY-RELEVANT TOOL FOR 21ST CENTURY ECOLOGY
<b>1500</b>	<b>†Burdick-Whipp, M.K.</b> DO CULVERTS PREVENT MARINE FISH FROM ACCESSING IMPORTANT HABITATS? A CASE STUDY AT THE COLORADO LAGOON, LONG BEACH	<b>Padilla-Gamino, J.L.</b> PHYSIOLOGICAL PLASTICITY AND LOCAL ADAPTATION TO ELEVATED PCO <sub>2</sub> IN CALCAREOUS ALGAE: AN ONTOGENIC AND GEOGRAPHIC APPROACH	<b>Lowndes, J.S. Stewart</b> IMPROVING REPRODUCIBILITY, COLLABORATION, AND COMMUNICATION IN ENVIRONMENTAL SCIENCE WITH OPEN SCIENCE TOOLS
<b>1515</b>	<b>DeVaney, S.C.</b> SPECIES DISTRIBUTION PREDICTION OF GIANT KELP USING CITIZEN SCIENCE DATA	<b>Hettinger, A.</b> MISSING THE FULL STORY: EXAMINING RESPONSES OF CORALLINE ALGAE TO ENVIRONMENTAL VARIABILITY IN THE CONTEXT OF OCEAN ACIDIFICATION	<b>Doerr, A.N.</b> INCREASING STATE CAPACITY TO ENGAGE WITH MARINE RESOURCE STAKEHOLDERS
<b>1530</b>	<b>BREAK</b>	<b>BREAK</b>	<b>BREAK</b>
<b>Time</b>	<b>Session 12: CYPRESS</b> <b>Applied Ecology II</b> <b>Chair: Lester, SE</b>	<b>Session 13: SPYGLASS</b> <b>Seascape Genetics</b> <b>Chair: Crandall, ED</b>	<b>Session 14: WINDJAMMER</b> <b>Behavioral Ecology</b> <b>Chair: Lowe, CG</b>
<b>1600</b>	<b>Lester, S.E.</b> MARINE SPATIAL PLANNING MAKES ROOM FOR OFFSHORE AQUACULTURE IN CROWDED COASTAL WATERS	<b>Crandall, E.D</b> SEASCAPE GENETIC ANALYSIS FOR A CORAL REEF COMMUNITY USING COALESCENT MODEL SELECTION	<b>Lowe, C.G.</b> BEACH BABIES - NEARSHORE MOVEMENTS OF JUVENILE WHITE SHARKS OFF SOUTHERN CALIFORNIA
<b>1615</b>	<b>Piacenza, S. E.</b> MONITORING STRATEGY EVALUATION: A NEW TOOL TO IMPROVE STATUS DETERMINATIONS OF SPECIES WITH LIMITED DETECTABILITY	<b>†Baetscher, D.S.</b> A NEEDLE IN THE HAYSTACK: GENETIC TECHNIQUES TO EFFICIENTLY SAMPLE NEARSHORE LARVAL DISPERSAL	<b>†Keen, E.M.</b> AGGREGATIVE AND FEEDING THRESHOLDS OF SYMPATRIC RORQUAL WHALES WITHIN A FJORD SYSTEM

FRIDAY, NOV 11		1600-1800		† eligible for Best Student Paper Award	
Time	Session 8: BALLROOM A  Evaluating MPAS II Chair: Saarman, ET	Session 9: BALLROOM B  Top-Down Control II Chair: Ruesink, JL	Session 10: BALLROOM C  Community Ecology II Chair: Jurgens, LJ	Session 11: BIG SUR  Reproduction, Dispersal, Recruitment II Chair: Koehl, MAR	
1630	<b>Shaughnessy, F.J.</b> THE MACROPHYTES, INVERTEBRATES AND FISH ALONG A GRADIENT OF MARINE PROTECTED AREAS IN NORTHERN CALIFORNIA	<b>Johnson, L.E.</b> CONSISTENCY IN A MARINE ALGAL-GRAZER INTERACTION OVER MULTIPLE SCALES	<b>Walker, S.E.</b> DIVERSITY OF SHELL REPAIR SCARS ON THE ANTARCTIC SCALLOP, <i>ADAMUSSIUM COLBECKI</i>	<b>Reyns, N</b> NEARSHORE LARVAL TRANSPORT: HIGH LARVAL CONCENTRATION AND SWITCH IN VERTICAL DISTRIBUTIONS ASSOCIATED WITH CURRENT REVERSALS	
1645	<b>†Osborn, K.E.</b> THE BIG, THE MAD, AND THE TEN: FISH AND INVERTEBRATE COMMUNITIES IN THREE NORTHERN CALIFORNIA RIVERINE ESTUARIES	<b>Ferrario, F.</b> HEY SIRI, WHERE CAN I FIND KELP TO EAT? SEASCAPE DRIVES KELP-GRAZER INTERACTIONS ON HETEROGENEOUS BOTTOMS	<b>Suraci, J.P.</b> FEAR AND MAMMALIAN MESOPREDATOR RELEASE: CARNIVORE INTERACTIONS STRUCTURE COASTAL COMMUNITIES	<b>Carlson, P.M.</b> TEMPORAL VARIABILITY IN REEF FISH RECRUITMENT: 15 YEARS OF DATA FORM THE SANTA BARBARA CHANNEL	
1700	<b>Succow, M.L.</b> WHERE THE SURF MEETS THE SAND: PREDATION BY REDTAIL SURFPERCH ON PACIFIC SAND CRABS WITHIN NORTHERN CA SANDY BEACHES	<b>†Burt, J.M.</b> ECOLOGICAL TRANSITIONS IN SEA OTTER-INDUCED REGIME SHIFTS	<b>†Ng, G.</b> IMPACTS OF SENSORY STRESS ON PREDATOR'S INDIRECT EFFECTS WITHIN A TRI- TROPHIC MODEL	<b>†Hart, L.C.</b> RED ABALONE ( <i>HALIOTIS RUFESCENS</i> ) RECRUITMENT DYNAMICS OVER TIME IN THE MONTEREY BAY	
1715	<b>†White, T.D.</b> ASSESSING THE EFFECTIVENESS OF LARGE MARINE PROTECTED AREAS FOR REEF SHARK CONSERVATION	<b>†Hardy, N.A.</b> A LOT TO LEARN ABOUT INTERACTIONS BETWEEN RECOVERING PINNIPED POPULATIONS AND TEMPERATE REEF COMMUNITIES	<b>†Spyksma, A.J.P.</b> TO FLEE OR NOT TO FLEE? THE EFFECTS OF ALARM CUES ON THE BEHAVIOUR OF SEA URCHINS	<b>Galloway, A.W.E.</b> MASSIVE CRAB RECRUITMENT EVENTS TO THE ROCKY NEARSHORE SUBTIDAL	
1730	<b>Saarman, E.T.</b> RESEARCH AND EDUCATION IN PROTECTED AREAS: A NOVEL ECOLOGICALLY- BASED PERMITTING DECISION FRAMEWORK	<b>Kroeker, K.J.</b> FUNCTIONAL RESPONSES OF SEAGRASS COMMUNITY TO OCEAN ACIDIFICATION AND NUTRIENTS: RESILIENCE TO MULTIPLE STRESSORS	<b>†Lewis L.S.</b> COMPARATIVE METABOLIC, TROPHIC, AND FUNCTIONAL ECOLOGY OF TROPICAL HERBIVOROUS ECHINOIDS IN MAUI, HAWAII	<b>†Romero, R.</b> EVIDENCE OF OVERWINTERING <i>ULVA</i> PROPAGULE BANK IN SAN FRANCISCO BAY	
1745	<b>†Jhaveri, P. K.</b> EVALUATION OF A MOBILE TOUCH TANK OUTREACH AND TIDEPOOL INTERPRETIVE PROGRAM TO OFFSET VISITOR IMPACTS ON ROCKY INTERTIDAL ZONES	<b>Harley, C.D.G.</b> EFFECTS OF ENVIRONMENTAL STRESS ON A KEYSTONE PREDATOR, BIOGENIC HABITAT, AND LOCAL AND LANDSCAPE SCALE DIVERSITY	<b>†Narváez, C. A.</b> COMPETITION AMONG SEA URCHINS: IS SIZE IMPORTANT?	<b>Kitting, C.L.</b> AQUATIC INVERTEBRATES ON DRIFTING AQUATIC PLANTS, TRANSPORTED IN 10-M DEPTHS OF THE FRESHWATER SAN JOAQUIN RIVER DELTA, CALIFORNIA	

FRIDAY, NOV 11 1600-1745 † eligible for Best Student Paper Award			
Time	Session 12: CYPRESS  Applied Ecology II Chair: Lester, SE	Session 13: SPYGLASS  Seascape Genetics Chair: Crandall, ED	Session 14: WINDJAMMER  Behavioral Ecology Chair: Lowe, CG
1630	<b>Rassweiler, A.</b> FEEDBACKS BETWEEN ECOSYSTEM STATE AND HUMAN BEHAVIOR DETERMINE CORAL REEF RESILIANCE	<b>Riginos, C.</b> TESTING FOR CONCORDANCE BETWEEN BIOPHYSICAL MODELS OF DISPERSAL AND SPATIAL GENETIC STRUCTURE FOR GREAT BARRIER REEF CORALS	<b>†LaScala-Gruenewald, D.E.</b> FAT-TAILED FORAGING STRATEGIES REQUIRE ENERGETIC TRADE-OFFS IN PATCHY ENVIRONMENTS
1645	<b>White, C.</b> TRADEOFF ANALYSIS FOR BALANCING MULTIPLE OBJECTIVES IN OCEAN MANAGEMENT	<b>Dawson, M.N</b> IN THE WAKE OF A PANDEMIC: THE GENETIC CONSEQUENCES OF MASS MORTALITY AND MASS RECRUITMENT IN <i>PISASTER OCHRACEUS</i>	<b>Green, S.J.</b> THE EFFECT OF INTER-SPECIFIC FORAGING AND ANTI-PREDATOR BEHAVIOURS ON PREY SELECTION: TESTS WITH CORAL REEF FISHES
1700	<b>White, J.W.</b> HOW MANY MALES DOES A POPULATION NEED?	<b>†Weiser, B.E.</b> EFFECTS OF ESTUARY OPENING ON POPULATION CONNECTIVITY OF CALIFORNIA KILLIFISH ( <i>FUNDULUS PARVIPINNIS</i> )	<b>†Crane, R.L.</b> STRATEGIC STRIKES: HOW MANTIS SHRIMP CRACK OPEN DIFFERENT PREY
1715	<b>Eckdahl, K.A.</b> WOMEN IN AQUACULTURE - WHERE RESTORATION, INDUSTRY, AND POLICY MEET	<b>†Cornwell, B.H.</b> GEOGRAPHIC PATTERNS OF INTROGRESSION BETWEEN ANEMONES IN THE GENUS <i>ANTHOPLEURA</i>	<b>†Voss, K.M.</b> INFLUENCE OF PERSONALITY ON GIANT PACIFIC OCTOPUS BEHAVIOR
1730	<b>†Atlas, W.I.</b> ANCIENT FISH WEIR TECHNOLOGY FOR MODERN STEWARDSHIP CHALLENGES: METHODS AND CONSIDERATIONS FOR COMMUNITY BASED SALMON MONITORING	<b>Aguilar, A.</b> POPULATION GENOMICS REVEALS HIGH CONNECTIVITY AMONG BREEDING COLONIES OF THE ELEGANT TERN ( <i>THALASSEUS ELEGANS</i> )	<b>†Garcia-Vedrenne, A.E.</b> SOCIALITY IN PARASITIC FLATWORMS: SPECIES OF A NEW TREMATODE FAMILY ALSO HAVE A NON-REPRODUCTIVE SOLDIER CASTE
1745	<b>Tissot, B.N.</b> THE SURFING ECOLOGIST: A NEW SYNERGY FOR SCIENCE AND SURFERS	<b>San Miguel, R.A.</b> POPULATION GENETIC STRUCTURE OF THE BULL-KELP, <i>NEREOCYSTIS LUETKEANA</i>	<b>†Bedgood, S.A.</b> CONTEXT DEPENDENT BENEFITS OF SYMBIOTIC ALGAE TO THEIR HOST ANEMONE AND ASSOCIATED MODIFICATION OF ANEMONE BEHAVIOR

**SATURDAY, NOVEMBER 12, 2016**

**PRESIDENTIAL SYMPOSIUM (0800-1000)**

**REGENCY BALLROOM**

***“THE FUTURE OF NATURAL HISTORY: THE ROLE AND RELEVANCE OF  
NATURAL HISTORY IN THE 21<sup>ST</sup> CENTURY”***

0800 **INTRODUCTION** (Jay Stachowicz)

0815 **J. Emmett Duffy**, *Smithsonian Institution*  
NETWORKED NATURAL HISTORY FOR A NEW CENTURY

0840 **Mary O’Connor**, *University of British Columbia*  
THE FUTURE OF NATURAL HISTORY: IT IS JUST A MATTER OF TIME

0905 **Drew Harvell**, *Cornell University*  
TURNING UP THE HEAT ON MARINE DISEASE

0930 **Rick Grosberg**, *University of California, Davis*  
THE FUTURE OF MARINE MOLECULAR ECOLOGY: BEYOND CONNECTIVITY

1000 **COFFEE BREAK**

1030-1200 **CONTRIBUTED PAPERS** (Regency Ballroom ABC, Big Sur, Cypress, Spyglass,  
Windjammer)

1200-1315 **LUNCH** (available for purchase in the Regency Foyer, see pg.4)

1315-1745 **CONTRIBUTED PAPERS** (Regency Ballroom ABC, Big Sur, Cypress, Spyglass,  
Windjammer)

1800-1900 **ANNUAL BUSINESS MEETING** (Spyglass Room)

1930-2130 **WSN DINNER BUFFET AND PRESIDENTIAL ADDRESS: Jay Stachowicz**  
(Regency Ballroom)

2130-2400 **UNDERSEA GALA: WSN AUCTION, LIVE MUSIC, and ENTERTAINMENT**  
(Regency Ballroom)





<b>SATURDAY, NOV 12 10:30-12:00</b>		<b>† eligible for Best Student Paper Award</b>		
<b>Time</b>	<b>Session 15: BALLROOM A</b>	<b>Session 16: BALLROOM B</b>	<b>Session 17: BALLROOM C</b>	<b>Session 18: BIG SUR</b>
	<b>Genetic and Genomic Approaches to Ecol I</b> <b>Chair: Grosberg, RK</b>	<b>Climate Change and Phenology I</b> <b>Chair: O'Connor, MI</b>	<b>Microbial and Disease Ecology</b> <b>Chair: Harvell, CD</b>	<b>Comparative/ Biogeographic Ecology</b> <b>Chair: Duffy, JE</b>
<b>1030</b>	<b>Levitan, D.R.</b> COEVOLUTION OF SEA URCHIN SPERM AND EGG RECOGNITION PROTEINS IN RESPONSE TO SHIFTING ABUNDANCES	<b>Dudgeon, S.R.</b> LONG-TERM DECLINES (1997-2015) OF INTERTIDAL MOLLUSKS IN THE GULF OF MAINE	<b>Aalto, E.A.</b> ASYMPTOMATIC TRANSMISSION AND ENVIRONMENTAL TRIGGERS COULD EXPLAIN THE RAPID SPREAD OF LARGE-SCALE EPIDEMICS IN MARINE ORGANISMS	<b>Byrnes, J.E.</b> THE EFFECTS OF SHIFTING GLOBAL OCEAN TEMPERATURE AND WAVE DISTURBANCE ON KELP POPULATIONS
<b>1045</b>	<b>†Kosman, E</b> THE EFFECT OF DENSITY ON CORRELATIONS BETWEEN GAMETE TRAITS IN A NATURAL POPULATION OF <i>CIONA INTESTINALIS</i>	<b>Elahi, R.</b> HONEY, I SHRUNK THE SNAILS: DECADE-SCALE CHANGES IN BODY SIZE ALONG AN INTERTIDAL GRADIENT SUPPORT THE TEMPERATURE-SIZE RULE	<b>†Moritsch, M.M.</b> ARE SEA STARS RECOVERING AFTER SEA STAR WASTING SYNDROME? ASSESSING PISASTER RECOVERY WITH GROWTH RATES AND RECRUITMENT	<b>Reynolds, P.L.</b> LATITUDINAL PATTERNS IN EELGRASS ECOLOGY ACROSS THE NORTHERN HEMISPHERE
<b>1100</b>	<b>Krueger-Hadfield, S.A.</b> UNCONSCIOUS UNCOUPLING: INVASIONS OF NOVEL HABITATS DISRUPT MACROALGAL LIFE CYCLES	<b>Boch, C.A.</b> EFFECTS OF CURRENT AND FUTURE COASTAL UPWELLING CONDITIONS ON THE FERTILIZATION SUCCESS OF RED ABALONE ( <i>HALIOTIS RUFESCENS</i> )	<b>Wood, C.L.</b> FISHING DRIVES DECLINES IN FISH PARASITE DIVERSITY AND HAS VARIABLE EFFECTS ON PARASITE ABUNDANCE	<b>†Kardish, M.R.</b> CONCORDANCE OF MICROBIAL COMMUNITIES, MESOGRAZERS, AND GENETIC STRUCTURE IN WORLDWIDE SAMPLING OF <i>ZOSTERA MARINA</i>
<b>1115</b>	<b>Sotka, EE</b> RAPID EVOLUTION OF STRESS TOLERANCE FACILITATES THE WORLDWIDE INVASION OF A SEAWEED	<b>Rogers-Bennett, L.</b> MARINE HEAT WAVE LINKED TO SEA URCHIN BOOM, KELP DEFORESTATION, ABALONE STARVATION AND FISHERY DECLINES IN NORTHERN CALIF.	<b>Dawkins, P.D</b> TRIPLE JEOPARDY: STRAIN, DOSAGE, AND ENVIRONMENT INCREASE VIRULENCE OF EELGRASS WASTING DISEASE	<b>†Bracewell, S.A.</b> LINKING RECRUITMENT TO COMMUNITY DEVELOPMENT OVER LATITUDE REVEALS A SHIFT IN THE ROLE OF STOCHASTIC VS. DETERMINISTIC PROCESSES
<b>1130</b>	<b>†Schiebelhut, L.M.</b> DEMISTIFYING DISPERSAL: PATTERNS AND SOURCES OF LARVAL AND ALLELIC RECRUITMENT AFTER A MULTISPECIES INVERTEBRATE DIE-OFF	<b>terHorst, C.P.</b> EVOLUTION TO THE RESCUE: SYMBIONT EVOLUTION OFFERS HOPE FOR CORALS	<b>Byers, J.E.</b> CONSISTENCY OF TREMATODE INFECTION PREVALENCE IN HOST POPULATIONS ACROSS LARGE SPATIAL AND TEMPORAL SCALES	<b>†Robinson, J.P.W.</b> SCALE-DEPENDENCE OF BOTTOM-UP AND TOP-DOWN PROCESSES IN CORAL REEF BENTHIC COMMUNITIES
<b>1145</b>	<b>†Ul-Hasan, S.</b> THE CALIFORNIA CONE: A COEVOLUTION MODEL FOR TRACKING HOST-MICROBE AND MICROBE-MICROBE INTERACTIONS ACROSS MARINE ECOREGIONS?	<b>Gehman, A.M.</b> HOST AND PARASITE THERMAL ECOLOGY JOINTLY DETERMINE THE EFFECT OF CHANGING CLIMATE ON EPIDEMIC DYNAMICS	<b>Hay, M.E.</b> CORAL MICROBIOMES AND CORAL SURVIVORSHIP ON SEAWEED VERSUS CORAL DOMINATED REEFS	<b>Bell, T.W.</b> SCALE DEPENDENCE OF BOTTOM-UP VS. DEMOGRAPHIC CONTROLS ON THE DYNAMICS OF GIANT KELP FORESTS

**SATURDAY, NOV 12 10:30-12:00 † eligible for Best Student Paper Award**

<b>Time</b>	<b>Session 19: CYPRESS</b> <b>Community Ecology III</b> <b>Chair: Selden, RL</b>	<b>Session 20: SPYGLASS</b> <b>Evolutionary Biology I</b> <b>Chair: Sigwart, J</b>	<b>Session 21: WINDJAMMER</b> <b>Physiological Ecology I</b> <b>Chair: Miller, LP</b>
<b>1030</b>	<b>Selden, R.L.</b> THE ROLE OF WARMING IN CURRENT AND FUTURE PISCIVORE DOMINANCE ON THE NORTHEAST U.S. SHELF	<b>†Cameron, H</b> SHOULD MOTHERS PROVISION OFFSPRING EQUALLY? THE FITNESS CONSEQUENCES OF WITHIN-BROOD VARIATION IN OFFSPRING SIZE	<b>Barneche, D. R.</b> THE BIOGEOGRAPHY OF MARINE FISH EGG SIZE
<b>1045</b>	<b>Blake, R. E.</b> ENVIRONMENTAL HETEROGENEITY AND COMMUNITY STRUCTURE DRIVE SPATIAL GROUND FISH DIVERSITY PATTERNS IN THE GULF OF ALASKA	<b>Malerba, M.E.</b> THE ECO-EVOLUTIONARY DYNAMICS OF CELL SIZE	<b>†Pettersen, A.K.</b> WHY DO COLDER MOTHERS PRODUCE LARGER OFFSPRING?
<b>1100</b>	<b>†McMunn, M.S.</b> IN THE HEAT OF THE MOMENT: DAILY FLUCTUATIONS IN TEMPERATURE STRUCTURE A SIERRA NEVADA ANT COMMUNITY	<b>†Starko, S.M.</b> AN EMPIRICAL TEST OF 'UNIVERSAL' BIOMASS SCALING RELATIONSHIPS IN KELPS: EVIDENCE OF CONVERGENCE WITH SEED PLANTS	<b>Miller, L.P.</b> PRYING INTO PRIVATE LIVES OF MUSSELS: FIELD MEASUREMENTS OF VALVE GAPE AND BODY POSTURE CHANGES IN THE WAVE-SWEPT INTERTIDAL ZONE
<b>1115</b>	<b>Sullaway, G.H.</b> CHARACTERIZING NET COMMUNITY PRODUCTION IN AN ECOSYSTEM INVADED BY <i>SARGASSUM HORNERI</i>	<b>†Ryan, W.H.</b> WHAT CAN A GLOBALLY INVASIVE SEA ANEMONE TEACH US ABOUT THE EVOLUTION OF CLONALITY?	<b>Vasquez, M.C.</b> USING PROTEOMICS TO REVEAL SIRTUINS AS REGULATORS OF THE CELLULAR STRESS RESPONSE IN MYTILID MUSSELS
<b>1130</b>	<b>†Nelson, H.R.</b> THE ROLE OF DENSITY-ASSOCIATED PROCESSES AND SHADING IN THE STRUCTURE AND DISTRIBUTION OF OCTOCORAL COMMUNITIES	<b>Hultgren, K.M.</b> POLAR GIGANTISM REVISITED: HIGH-LATITUDE CRUSTACEANS HAVE LARGER GENOMES	<b>†Fox, M.D</b> ALL YOU CAN EAT BUFFET: REEF-BUILDING CORALS INCREASE HETEROTROPHIC FEEDING ALONG GRADIENTS OF PRIMARY PRODUCTIVITY
<b>1145</b>	<b>†Al-Marayati, M.S.</b> RUGOSE MICROHABITATS AFFECT OCTOCORAL DISTRIBUTION ON CORAL REEFS IN ST. JOHN, U.S. VIRGIN ISLANDS	<b>Sigwart, J.</b> PATCHY DISTRIBUTION, AND PATCHY TAXONOMY IN A SHALLOW-WATER MARINE MOLLUSC	<b>†Schaal, S.M.</b> PLASTIC RESPONSES TO TEMPERATURE IN JUVENILE PACIFIC ROCKFISH

<b>SATURDAY, NOV 12</b>		<b>1315-1530</b>		<b>† eligible for Best Student Paper Award</b>		
<b>Time</b>	<b>Session 22: BALLROOM A Genetic and Genomic Approaches to Ecol II Chair: Grosberg, RK</b>	<b>Session 23: BALLROOM B Climate Change and Phenology II Chair: O'Connor, MI</b>	<b>Session 24: BALLROOM C Intertidal Ecology I Chair: Sorte, CJB</b>	<b>Session 25: BIG SUR Fisheries Ecology I Chair: Lindholm, J</b>		
<b>1315</b>	<b>Bernardi, G</b> GENE EXPRESSION RESPONSES TO OCEAN ACIDIFICATION IN THE BLACK SURFPERCH, <i>EMBIOTOCA JACKSONI</i>	<b>†Frechette, D.M.</b> EVERYONE IN THE POOL: THERMAL REFUGE USE BY ATLANTIC SALMON DURING IN-RIVER MIGRATION	<b>†Worden, S.E.</b> ROCKY INTERTIDAL SPECIES INTERACTION WEBS VARY WITH ROCK TYPE AND SITE IN CENTRAL CALIFORNIA	<b>Lindholm, J.</b> QUANTIFICATION OF HABITAT IMPACTS UNDER SELECTED TRAWL MODIFICATIONS: A COLLABORATIVE APPROACH TO PRESSING MANAGEMENT QUESTIONS		
<b>1330</b>	<b>Evans, T.G.</b> TRANSCRIPTOMIC RESPONSES TO SEAWATER ACIDIFICATION AMONG SEA URCHIN POPULATIONS INHABITING A NATURAL PH MOSAIC	<b>Cheng, B.S.</b> ATMOSPHERIC RIVERS AND THE MASS MORTALITY OF WILD OYSTERS: INSIGHT INTO AN EXTREME FUTURE?	<b>Bell, C.A.</b> PATTERNS FROM DECADES OF ROCKY INTERTIDAL MONITORING	<b>Yamane, L.</b> EFFECTS OF HATCHERY SUPPLEMENTATION ON VARIABILITY IN EXPLOITED SALMON POPULATIONS		
<b>1345</b>	<b>Komoroske, L.M.</b> LINKING TRANSCRIPTIONAL AND ORGANISMAL RESPONSES REVEALS MECHANISMS OF ENVIRONMENTAL SENSITIVITY IN AN ENDANGERED ESTUARINE FISH	<b>Picard, M.</b> EVENT-DRIVEN ESTUARINE ACIDIFICATION: UPWELLING AND STORM INFLOW ALTER OYSTER GROWTH DIFFERENTLY IN A NORTHERN CALIFORNIA ESTUARY	<b>Sorte, C.J.B.</b> MUSSEL DECLINES AND INTERTIDAL COMMUNITY SHIFTS OVER THE PAST 40 YEARS IN THE GULF OF MAINE	<b>†Hinterman, K.D.</b> ESTABLISHING A BIODIVERSITY AND DNA BARCODE BASELINE FOR ROCKY INTERTIDAL FISH COMMUNITIES IN NORTHERN CALIFORNIA		
<b>1400</b>	<b>†Dziedzic, K.E.</b> PROFILING GENE EXPRESSION IN AN INTERTIDAL SEA ANEMONE ( <i>ANTHOPEURA ELEGANTISSIMA</i> ) ACROSS HABITATS AND SYMBIOTIC STATES	<b>Shauer, M.</b> ASSESSING THE IMPACTS OF PROJECTED CLIMATE CHANGE ON THE ECOPHYSIOLOGY OF <i>SACCHARINA LATISSIMA</i>	<b>Robinson, J.R.</b> MUSSEL BED DYNAMICS, A FIVE YEAR PERSPECTIVE	<b>Thompson, M.D.</b> 24 FATHOMS UNDER THE SEA: QUANTIFYING THE CAUSES AND CONSEQUENCES OF SHIFTS IN PACIFIC HERRING ( <i>CLUPEA PALLASII</i> ) SPAWN BEHAVIOR		
<b>1415</b>	<b>Lazzarotto, H.</b> BOTH ISOLATION AND NATURAL SELECTION INFLUENCE THE POPULATION GENOMICS OF <i>COPELLA NIGROFASCIATA</i> (PISCES) IN THE BRAZILIAN AMAZON	<b>†Tanner, R.L.</b> PARENTAL ORIGIN INFLUENCES LARVAL HATCHING SUCCESS DURING ACUTE THERMAL STRESS IN <i>PHYLLAPLYSIA TAYLORI</i>	<b>Cusson, M.</b> EFFECT OF MULTIPLE DISTURBANCES AND STRESSES ON THE TEMPORAL TRAJECTORIES AND RECOVERY OF BENTHIC COMMUNITIES	<b>†Emry, Sandra M.</b> MONITORING THE GROWTH AND SURVIVAL OF LARVAL HERRING ON BRITISH COLUMBIA'S CENTRAL COAST		
<b>1430</b>	<b>Jue, N.J.</b> RAPID EVOLUTIONARY RATES AND UNIQUE GENOMIC SIGNATURES IN THE REFERENCE GENOME FOR THE SOUTHERN OCEAN SALP, <i>SALPA THOMPSONI</i>	<b>†Wong, J.M.</b> WHOS YOUR MOMMY? TRANSCRIPTOMICS REVEAL TRANSGENERATIONAL EFFECTS IN PURPLE SEA URCHINS EXPOSED TO UPWELLING CONDITIONS	<b>†Duncan, E.A.</b> ENVIRONMENTAL CONTROLS OF BLACK ABALONE BODY TEMPERATURE: LINKS TO THERMAL STRESS AND THE RISK OF DISEASE	<b>Okamoto, D.K.</b> IMPACTS OF METAPOPOPULATION DYNAMICS ON OVERFISHING RISK AND VULNERABILITY IN MULTISCALE FISHERIES		

<b>SATURDAY, NOV 12 1315-1530 † eligible for Best Student Paper Award</b>			
<b>Time</b>	<b>Session 26: CYPRESS</b> <b>Community Ecology IV</b> <b>Chair: Miller, KA</b>	<b>Session 27: SPYGLASS</b> <b>Conservation and Restoration</b> <b>Chair: Hobbs, JA</b>	<b>Session 28: WINDJAMMER</b> <b>Physiological Ecology II</b> <b>Chair: Stephens, TA</b>
<b>1315</b>	<b>Miller, Kathy Ann</b> THE SEAWEED FLORA OF CALIFORNIA, REBOOTED (1976-2016)	<b>Hobbs, J.A.</b> RESTORING TIDAL WETLANDS IN THE SAN FRANCISCO ESTUARY	<b>†Wall, C.B.</b> HIGH PCO <sub>2</sub> ALTERS THE ENERGETICS AND COMPOSITION OF BIOMASS, BUT NOT CALCIFICATION, IN A REEF BUILDING CORAL AT TWO LIGHT REGIMES
<b>1330</b>	<b>†Elsberry, L.A.</b> CAUSES AND CONSEQUENCES OF THE ABUNDANCES OF THREE ROCKWEED SPECIES ON CALIFORNIA ROCKY SHORES	<b>†Beheshti, K.M.</b> SEAGRASS RESTORATION AND THE TRAJECTORY OF ENHANCED ECOSYSTEM FUNCTIONING	<b>Burgess, S.C.</b> SIZE-DEPENDENT PHYSIOLOGICAL RESPONSES OF A CORAL WITH COMPLEX MORPHOLOGY IN DIFFERENT ENVIRONMENTS
<b>1345</b>	<b>†Traiger, S.B.</b> FINE SEDIMENT ALTERS COMPETITION BETWEEN TWO ALASKAN KELPS AT THE MICROSCOPIC STAGE	<b>Hofmeister, J.K.K.</b> PREDATION AND PREDATOR RESPONSE TO EXPERIMENTAL STOCKING OF RED ABALONE ( <i>HALIOTIS RUFESCENS</i> ) IN SOUTHERN CALIFORNIA	<b>Stephens, T.A.</b> DISTRIBUTION OF CARBONIC ANHYDRASE AND CARBON PARTITIONING IN SUBTIDAL MARINE MACROALGAE FROM SOUTHERN BRITISH COLUMBIA
<b>1400</b>	<b>Foley, M.M.</b> EFFECTS OF DAM REMOVAL ON NEARSHORE SUBTIDAL COMMUNITIES	<b>†Bird, A.C.</b> DETERMINING POPULATION STRUCTURE, REPRODUCTIVE POTENTIAL, AND HABITAT ASSOCIATIONS OF PINTO ABALONE IN SOUTHERN CALIFORNIA	<b>Kim, T.</b> EFFECT OF SEAWATER WARMING AND LOW DISSOLVED OXYGEN ON BEHAVIOR AND PHYSIOLOGY OF MARINE BENTHIC INVERTEBRATES
<b>1415</b>	<b>Schiel, D.R.</b> REDUCED PRODUCTIVITY AND COMPENSATORY LIGHT DYNAMICS FOLLOWING DISTURBANCE IN INTERTIDAL ALGAL ASSEMBLAGES	<b>Walker, B.J.</b> INTEGRATED HABITAT SUITABILITY EVALUATION INCORPORATING LIFE HISTORY, TOPOGRAPHY, AND TEMPERATURE FOR WHITE ABALONE RESTORATION	<b>†Carilli, P.B.</b> PHYSIOLOGICAL EFFECTS OF LOW DISSOLVED OXYGEN ON PACIFIC SANDDABS
<b>1430</b>	<b>Cromie, L.C.</b> EFFECTS OF HERBIVORY ON INTERACTIONS AMONG CORAL REEF ALGAE	<b>†Guerra, A.S.</b> THE WORTH OF GIANTS: PUTTING A PRICE ON AN ENDANGERED FISH	<b>†Li, D.H.</b> EFFECTS OF HYPOXIA ON JET-PROPELLED ESCAPE BEHAVIOR IN <i>DORYTEUTHIS OPALESCENS</i> (CALIFORNIA MARKET SQUID)

SATURDAY, NOV 12		1315-1530		† eligible for Best Student Paper Award	
<b>Time</b>	<b>Session 22: BALLROOM A Genetic and Genomic Approaches to Ecol II Chair: Grosberg, RK</b>	<b>Session 23: BALLROOM B Climate Change and Phenology II Chair: O'Connor, MI</b>	<b>Session 24: BALLROOM C Intertidal Ecology I Chair: Sorte, CJB</b>	<b>Session 25: BIG SUR Fisheries Ecology I Chair: Lindholm, J</b>	
<b>1445</b>	<b>Gaither, M.R.</b> THE GENOMICS OF ADAPTATION IN THE DEEP SEA	<b>Heard, M.P.</b> EFFECTS OF CLIMATE CHANGE ON THE LARVAL DEVELOPMENT OF <i>HALIOTIS</i> <i>RUFESCENS</i>	<b>†Hunt, E.M.</b> RECENT THERMAL HISTORY CONTROLS MICROALGAL PHOTOSYNTHETIC RESPONSE TO ACUTE TEMPERATURE STRESS	<b>Beaudreau, A.H.</b> SHIFTING TARGET SPECIES PORTFOLIOS AND THE NEED FOR ECOSYSTEM-BASED MANAGEMENT OF RECREATIONAL FISHERIES	
<b>1500</b>	<b>Johnson, S. B.</b> LOOKING FOR LARVAE IN ALL THE RIGHT PLACES	<b>Hann, A.M.</b> LITTLE FISH, BIG PICTURE: COMPARING FORAGE FISH FOOD CONDITIONS BETWEEN COLD AND WARM PERIODS IN THE NORTHERN CALIFORNIA CURRENT	<b>Rader, R.B.</b> EVIDENCE OF COMPETITION FOR FOOD BETWEEN THE SNAIL, <i>TEGULA</i> <i>FUNEBRALIS</i> AND THE HERMIT CRAB, <i>PAGURUS</i> <i>GRANOSIMANUS</i>	<b>†Barnes, C.L.</b> A COMPARATIVE ASSESSMENT OF RESOURCE USE BY PACIFIC HALIBUT AND ARROWTOOTH FLOUNDER FROM NEARSHORE WATERS OF SOUTHEAST ALASKA	
<b>1515</b>	<b>†Olson, C.R.</b> POPULATION GENETIC STRUCTURE OF TWO ABYSSAL GRENADIERS OF THE NORTH ATLANTIC AND NORTHEASTERN PACIFIC OCEANS	<b>†Fredston-Hermann, A.</b> NON-CLIMATE DRIVERS OF SPECIES DISTRIBUTIONS IN THE ANTHROPOCENE	<b>Schram, J.B.</b> THE INFLUENCE OF ALGAL DIET MIXTURES ON ISOPOD GROWTH, TISSUE TURNOVER, AND COLORATION	<b>†Porter, A.G.</b> INCIDENTAL REEFS: A SPATIAL COMPARISON OF FISH ASSEMBLAGES AT NATURAL REEFS AND MARINE INFRASTRUCTURE	
<b>1530</b>	<b>BREAK</b>	<b>BREAK</b>	<b>BREAK</b>	<b>BREAK</b>	
<b>Time</b>	<b>Session 29: BALLROOM A Ocean Acidification I Chair: Swezey, DS</b>	<b>Session 30: BALLROOM B Kelp Forest Communities I Chair: Tinker, MT</b>	<b>Session 31: BALLROOM C Intertidal Ecology II Chair: Mieszkowska, N</b>	<b>Session 32: BIG SUR Fisheries Ecology II Chair: Carson, HS</b>	
<b>1600</b>	<b>†Lowe, A.T.</b> A TALE OF TWO OYSTERS: COMPARATIVE RESPONSES OF OLYMPIA AND PACIFIC OYSTERS TO <i>IN SITU</i> FOOD AND PH VARIATION IN WASHINGTON STATE	<b>Tinker, M. T.</b> LONG-TERM DYNAMICS OF SUBTIDAL COMMUNITIES AT SAN NICOLAS ISL: STABILITY, ALTERNATIVE STATES, AND A COMPLEX TOP- DOWN PERTURBATION	<b>Mieszkowska, N.</b> BEYOND LONG-TERM AVERAGES: MAKING BIOLOGICAL SENSE OF A RAPIDLY CHANGING WORLD	<b>Carson, H.S.</b> THE (FUTURE) RECOVERY OF CALIFORNIA SEA CUCUMBER STOCKS IN WASHINGTON STATE	
<b>1615</b>	<b>Swezey, D.S.</b> EFFECTS OF OCEAN ACIDIFICATION ON LARVAL AND POST- SETTLEMENT RED ABALONE	<b>†Bonsell, C.E.</b> DO SEASONAL ENVIRONMENTAL GRADIENTS DRIVE BENTHIC COMMUNITY STRUCTURE IN AN ARCTIC KELP BED?	<b>Rognstad, R.L.</b> MESOSCALE MAPPING OF INTERTIDAL HOT AND COLD SPOTS IN THE NORTHEASTERN PACIFIC	<b>Bingham, J.A.</b> BARNACLES FOR DINNER: INITIAL INVESTIGATIONS INTO THE DEVELOPMENT OF A SUSTAINABLE OREGON GOOSENECK BARNACLE FISHERY	

<b>SATURDAY, NOV 12 1315-1530 † eligible for Best Student Paper Award</b>			
<b>Time</b>	<b>Session 26: CYPRESS Community Ecology IV Chair: Miller, KA</b>	<b>Session 27: SPYGLASS Conservation and Restoration Chair: Hobbs, JA</b>	<b>Session 28: WINDJAMMER Physiological Ecology II Chair: Stephens, TA</b>
<b>1445</b>	<b>†Cannon, A.L.</b> THE EFFECT OF SIMULATED GREEN TURTLE GRAZING ON THE ECOLOGY OF SEAGRASS BEDS IN BOCAS DEL TORO, PANAMA	<b>Tapia-Lewin, S.</b> FISHERS' PERCEPTIONS ON THE CHILEAN COASTAL TURF SYSTEM AFTER TWO DECADES: PROBLEMS, BENEFITS, AND EMERGING NEEDS	<b>†Low, N.H.N.</b> EFFECTS OF MULTIPLE STRESSORS AND INTERMITTENT EXPOSURE ON THE METABOLIC AND ECOLOGICAL FUNCTION OF A KEY GRAZER
<b>1500</b>	<b>†Burnett, N.P.</b> THE STRENGTH OF KELP TISSUE DEPENDS ON AGE, SEASON, AND HERBIVORE ACTIVITY	<b>Pausch, R.P.</b> EFFECT OF GENET AND HABITAT ON OUTPLANTED ELKHORN CORAL ( <i>ACROPORA PALMATA</i> ) FRAGMENT SUCCESS	<b>Liwanag, H.E.M.</b> THE EFFECTS OF SUBMERGENCE ON THE THERMAL FUNCTION OF PINNIPED FUR
<b>1515</b>	<b>†McHugh, T.A.</b> THE EFFECTS OF DISTURBANCE EVENTS ON SUBTIDAL RED ALGAE COMMUNITIES	<b>†Ladd, M.C.</b> DENSITY DEPENDENCE DETERMINES SUCCESS OF <i>ACROPORA CERVICORNIS</i> RESTORATION EFFICACY ON A CARIBBEAN CORAL REEF	<b>Kendall-Bar, J.M.</b> SLEEPING WITH ONE EYE OPEN: USING EYE STATE AS A PROXY FOR UNIHEMISPHERIC SLEEP IN NORTHERN FUR SEALS
<b>1530</b>	<b>BREAK</b>	<b>BREAK</b>	<b>BREAK</b>
	<b>Session 33: CYPRESS Community Ecology V Chair: Benkwitt, CE</b>	<b>Session 34: SPYGLASS Ecosystem Assessment Chair: Myers, MR</b>	<b>Session 35: WINDJAMMER Physiological Ecol III Chair: Donovan, DA</b>
<b>1600</b>	<b>Benkwitt, C.E.</b> NON-CONSUMPTIVE EFFECTS OF NATIVE AND INVASIVE PREDATORS ON RECRUITMENT OF CORAL-REEF FISHES	<b>Beas, R.</b> ALASKA TO BAJA CONSORTIUM FOR REEF MONITORING (ABC-REEF): TRACKING REGIONAL CHANGE OF KELP FOREST ECOSYSTEMS	<b>Donovan, D.A.</b> BROAD SALINITY TOLERANCE OF THE NON-NATIVE CLAM <i>NUTTALLIA OBSCURATA</i>
<b>1615</b>	<b>†Focht, B</b> EVALUATION OF PATTERNS AND CONSEQUENCES OF DISTURBANCE EVENTS FOR INTERTIDAL/SHALLOW SUBTIDAL MARINE REEF FISH	<b>†Higgins, B.</b> DISTRIBUTION OF THE CALIFORNIA MORAY ( <i>GYMNOTHORAX MORDAX</i> ) AROUND TWO HARBORS, SANTA CATALINA ISLAND, CALIFORNIA.	<b>Strawhand, A.K.</b> THE IMPACT OF WATER FLOW ON THE GROWTH AND INVASION OF TWO CRYPTIC <i>WATERSIPORA</i> SPP.

SATURDAY, NOV 12		1600-1745		† eligible for Best Student Paper Award	
Time	Session 29: BALLROOM A Ocean Acidification I Chair: Swezey, DS	Session 30: BALLROOM B Kelp Forest Communities I Chair: Tinker, MT	Session 31: BALLROOM C Intertidal Ecology II Chair: Mieszkowska, N	Session 32: BIG SUR Fisheries Ecology II Chair: Carson, HS	
1630	†Griffiths, J.S. INTRASPECIFIC VARIATION IN THE RESPONSE OF THE CORAL, <i>BALANOPHYLLIA</i> <i>ELEGANS</i> , TO FUTURE OCEAN ACIDIFICATION	†Muth, A.M. COMMUNITY VARIATIONS DUE TO THE PRESENCE AND ABSENCE OF CRUSTOSE CORALLINE ALGAE IN AN ARCTIC KELP SYSTEM	He, Q. NATURAL ENEMIES GOVERN ECOSYSTEM RESILIENCE IN THE FACE OF EXTREME DROUGHTS	Pierce, E. GRUNION RUNS ARE DECREASING ON LOS ANGELES COUNTY BEACHES	
1645	†Manning, J.C. DIFFERENTIAL EFFECTS OF WOUNDING AND OCEAN ACIDIFICATION ON TROPICAL CRUSTOSE CORALLINE ALGAE	†Dobkowski, K.A. LIMITING FACTORS OF ESTABLISHMENT OF BULL KELP FORESTS	†Litt, J.N. THE HIGHER THEY ARE, THE HARDER THEY FALL: IS <i>PISASTER</i> MORE SUSCEPTIBLE TO WASTING DISEASE IN THE HIGH INTERTIDAL ZONE?	†Benseman, S.A. THE SECRET LIFE OF BABY GIANTS: THE RECRUITMENT OF THE ENDANGERED GIANT SEA BASS	
1700	†Shayka, B.F. EFFECTS OF OCEAN ACIDIFICATION AND SHORT-TERM NUTRIENT ENRICHMENT ON CRUSTOSE CORALLINE ALGAE	†Liu, O.R. NOVEL NONLINEAR FORECASTING METHODS IDENTIFY DYNAMIC SPECIES INTERACTIONS IN A SOUTHERN CALIFORNIA KELP FOREST	Whalen, M.A. EFFECTS OF SMALL- SCALE TOPOGRAPHY ON DEVELOPMENT OF ROCKY INTERTIDAL COMMUNITIES	†Frawley, T.H. EL NIÑO FOREVER? GULF OF CALIFORNIA SARDINES AND HUMBOLDT SQUID AS MESSENGERS OF CHANGE	
1715	Silbiger, N.J "PH"-INGERPRINTING WEST COAST TIDE POOLS: PHYSICAL VERSUS BIOLOGICAL DRIVERS OF COASTAL BIOGEOCHEMISTRY	†Cunningham, S.R. DECOUPLING PHYSICAL FROM BIOGENIC EFFECTS OF THE GIANT KELP <i>MACROCYSTIS</i> <i>PYRIFERA</i> ON POC DISTRIBUTION IN A KELP FOREST	†Miranda, L. QUANTIFYING ICE SCOUR ACROSS SPATIAL SCALES AND EVALUATING ITS IMPACT ON MACROALGAL ASSEMBLAGES IN SUBARCTIC ECOSYSTEMS	Tuszynski, I.T. USING HYDROACOUSTICS TO DESCRIBE THE DISTRIBUTION OF LARGE FISH IN THE PENOBSCOT ESTUARY, ME	
1730	†Rickborn, A.J. THE EFFECTS OF REDUCED SEAWATER PH ON THE EARLY LIFE HISTORY OF A COMMON PORIFERAN, <i>HALICHONDRIA</i> <i>PANICEA</i>	Shears, N. T. INTERACTIVE EFFECTS OF INCREASING TURBIDITY AND WARMING ON KELP FOREST PRODUCTIVITY AND RESILIENCE	La Valle, F.F. PROMOTING UNDERGRADUATE RESEARCH WITH THE OUR PROJECT IN HAWAII'S INTERTIDAL (OPIHI) INTERNSHIP	†Roycroft, M.A. QUANTIFYING HERBIVORY ON CORAL REEFS TO DEVELOP A METRIC FOR MANAGEMENT AND CONSERVATION OF CARIBBEAN PARROTFISHES	



**SATURDAY, NOV 12 1600-1745 † eligible for Best Student Paper Award**

<b>Time</b>	<b>Session 33: CYPRESS</b>  <b>Community Ecology V</b> <b>Chair: Benkwitt, CE</b>	<b>Session 34: SPYGLASS</b>  <b>Ecosystem Assessment</b> <b>Chair: Myers, MR</b>	<b>Session 35: WINDJAMMER</b>  <b>Physiological Ecol III</b> <b>Chair: Donovan, DA</b>
<b>1630</b>	<b>†Donovan, M.K.</b> FISH FUNCTIONAL GROUPS PREDICT DISPARITIES IN ECOSYSTEM STATE IN THE CARIBBEAN	<b>†Carter, A.L.</b> SPATIAL AND TEMPORAL EXPANSION OF THE CORALLIMORPH, <i>RHODACTIS HOWESII</i> , AT PALMYRA ATOLL	<b>†Merolla, S.M.</b> EFFECTS OF WATER FLOW ON CALCIFICATION FOR DIFFERENT MORPHOLOGIES OF CORALLINE ALGAE
<b>1645</b>	<b>Tsounis, G.</b> EFFECTS OF OCTOCORALS ON THE FEEDING BEHAVIOR OF HERBIVOROUS CORAL REEF FISHES IN THE CARIBBEAN	<b>†Lanham, B.S.</b> UNDERSTANDING THE EFFECTS OF BOATING INFRASTRUCTURE ON NATURAL HABITATS: A FINE-SCALE APPROACH	<b>†Dawson, C.J.</b> PHYSICAL AND CHEMICAL RESPONSE TO DISTURBANCE BY THE FUCOID, <i>STEPHANOCYSTIS OSMUNDACEA</i>
<b>1700</b>	<b>†Rhoades, O.K.</b> CONTRASTING BEHAVIORAL RESPONSES OF MARINE FISHES TO SCUBA DIVING, FISHING, AND ENVIRONMENTAL CHANGE: IMPACTS ON PREDATION RATES	<b>Myers, M.R.</b> GHOST CRAB BURROWS AND BEACH GROOMING	<b>†Suskiewicz, T.S.</b> THAT WHICH DOES NOT KILL YOU... DOES WATER MOTION DRIVE NET PRIMARY PRODUCTIVITY IN SUBTIDAL KELP?
<b>1715</b>	<b>†Ridlon, A.D.</b> PARTIAL HABITUATION TO CHRONIC SCUBA DIVING ACTIVITY IN A COMMON HERBIVOROUS REEF FISH, <i>SPARISOMA VIRIDE</i>	<b>Quinlan, Z.A.</b> CORAL ORGANIC EXUDATES TRACK GRADIENTS IN NUTRIENT ENRICHMENT	<b>†Coleman, L.J.M.</b> MORPHOLOGICAL REACTION NORMS ACROSS A GRADIENT OF MECHANICAL STRESS IN THE KELP <i>NEREOCYSTIS LUETKEANA</i>
<b>1730</b>	<b>†Morton, D.N.</b> PARASITE DIVERSITY AND NICHE OVERLAP OF COMMON KELP FOREST SURFPERCHES (EMBIOTOCIDAE)	<b>†Tinoco, A.I.</b> EFFECTS OF HURRICANE SANDY ON GREAT SOUTH BAY, LONG ISLAND: ASSESSING WATER QUALITY, SEAGRASS, AND NEKTON COMMUNITIES	<b>†Drobnitch, S.T.</b> PATTERNS AND DRIVERS OF $\delta^{13}\text{C}$ VARIATION IN MACROCYSTIS PYRIFERA



**SUNDAY, NOVEMBER 13, 2016**

0800-0845 **POSTER SET-UP FOR PRESENTERS\*** (Monterey Ballroom)

\*Please have your poster on display by no later than 08:45

0830-1000 **WSN BRUNCH** (Monterey Terrace)

0900-1200 **WSN POSTER SESSION** (Monterey Ballroom)

1200-1300 **LUNCH** (available for purchase in the Regency Foyer, see pg.4)

1300-1430 **CONTRIBUTED PAPERS** (Regency Ballroom ABC, Big Sur, Cypress, Spyglass, Windjammer)

1430-1500 **BREAK**

1500-1600 **PLENARY SPEAKER** (Regency Ballroom)

**Dr. James Estes**, *University of California Santa Cruz*

*"ADVENTURES IN NATURE AND PATHWAYS TO ECOLOGICAL UNDERSTANDING"*

1600-1630 **BOOK SIGNING:** Your chance to purchase a signed copy of Jim's new book!  
(*"Serendipity: An Ecologist's Quest to Understand Nature,"* UC Press, 2016)

<b>SUNDAY, NOV 13 1300-1430</b>		<b>† eligible for Best Student Paper Award</b>		
<b>Time</b>	<b>Session 36: BALLROOM A Ocean Acidification II Chair: Sunday, JM</b>	<b>Session 37: BALLROOM B Kelp Forest Communities II Chair: Young, MA</b>	<b>Session 38: BALLROOM C Community Ecology VI Chair: Lohse, DP</b>	<b>Session 39: BIG SUR Coral Reef Communities Chair: Ruttenberg, BI</b>
<b>1300</b>	<b>Sunday, J.M.</b> STRONG SPECIES INTERACTIONS IN A WARMING AND ACIDIFIED OCEAN	<b>Young, M.A.</b> INTERACTION BETWEEN HABITAT AND OCEANOGRAPHIC VARIABLES AFFECTING CONNECTIVITY AND PRODUCTIVITY OF ABALONE POPULATIONS	<b>Mach, M.E.</b> REPRISE, REPEAT, AND REPLICATE: ESTABLISHING FOUNDATIONS FOR UNDERSTANDING LONG-TERM CHANGES IN MARINE BIODIVERSITY	<b>Ruttenberg, B.I.</b> PARROTFISH HERBIVORY AND RECOVERY OF CARIBBEAN CORAL REEFS: SCALING UP FROM INDIVIDUAL BEHAVIOR TO ECOSYSTEM IMPACTS
<b>1315</b>	<b>†Anderson, K.M.</b> CALCIFIED HERBIVORE LOSS MAY DISPROPORTIONATELY DRIVE RESPONSES TO OCEAN ACIDIFICATION IN NATURAL COMMUNITIES.	<b>Castorani, M.C.N.</b> CONNECTIVITY AND DYNAMICS OF GIANT KELP METAPOPULATIONS IN SOUTHERN CALIFORNIA	<b>Miner, C.M.</b> LARGE-SCALE IMPACTS OF SEA STAR WASTING DISEASE ON <i>PISASTER OCHRACEUS</i> , RECENT RECRUITMENT, AND IMPLICATIONS FOR RECOVERY	<b>Edmunds, P.J.</b> GENETIC VARIATION IN GROWTH RATE IS A POOR PREDICTOR OF FITNESS FOR REEF CORALS
<b>1330</b>	<b>Lord, J.P.</b> COMMUNITY-LEVEL RESPONSES TO WARMING AND OCEAN ACIDIFICATION	<b>†Karatayev, V.A.</b> AT WHAT SPATIAL SCALES SHOULD WE EXPECT ALTERNATIVE STABLE STATES IN MARINE COMMUNITIES WITH HIGH RECRUITMENT OPENNESS?	<b>Williams, J.P.</b> LONG-TERM MONITORING OF KELP FOREST AND TIDEPOOL COMMUNITIES: BEFORE, DURING, AND AFTER SEA STAR WASTING IN SOUTHERN CALIFORNIA	<b>Burkepile, D.E.</b> IMPACT OF NUTRIENT POLLUTION ON CORAL BLEACHING, CORAL MORTALITY, AND CORAL RECOVERY ON MOOREA CORAL REEFS
<b>1345</b>	<b>†Sullivan, J.M.</b> EFFECTS OF ACIDIFICATION, TEMPERATURE AND FOOD AVAILABILITY ON THE <i>PISASTER OCHRACEUS</i> RECRUIT - MUSSEL INTERACTION	<b>†Weitzman, B.P.</b> VARIABILITY IN GREEN SEA URCHIN DEMOGRAPHY AT MULTIPLE SPATIAL SCALES ACROSS THE ALEUTIAN ARCHIPELAGO	<b>Barbour, N.A.</b> SPATIAL AND TEMPORAL VARIABILITY OF A BIOLOGICAL GUILD ON THE MONTEREY BAY SANDY CONTINENTAL SHELF DURING THE 2015-2016 EL NIÑO	<b>Brooks, A.J.</b> RECOVERY TRAJECTORIES OF REEF FISHES FOLLOWING LARGE-SCALE DISTURBANCES: SIZE MATTERS
<b>1400</b>	<b>†Brown, N.E.M.</b> FOOD AVAILABILITY AND DIET MODULATE SPECIES- BUT NOT COMMUNITY-LEVEL RESPONSES TO ACIDIFICATION IN MARINE FOULING COMMUNITIES	<b>†Pang, G.H.</b> SEA OTTER RECOVERY DRIVES SHIFTS IN ROCKY REEF ECOSYSTEM NICHE SPACE	<b>Lohse, D.P.</b> COMPARING CURRENT TO HISTORIC/ PUBLISHED RANGE LIMITS: A CAUTIONARY TALE	<b>†Clements, C.S.</b> CORAL DIVERSITY ENHANCES THE GROWTH, HEALTH, AND RESISTANCE TO MACROALGAL INVASION OF CORAL COMMUNITIES ON DEGRADED REEFS
<b>1415</b>	<b>†Ng, C.A.</b> THE EFFECTS OF OCEAN ACIDIFICATION AND HYPOXIA ON GRAZING INTERACTIONS WITHIN GIANT KELP FORESTS	<b>†Raymond, W.W.</b> SEA OTTER HARVEST AND POPULATION DYNAMICS IN SOUTHEAST ALASKA	<b>†Wheelock, M.K.</b> SHIFTING SPECIES BOUNDARIES: NATIVE AND INTRODUCED MUSSELS ( <i>MYTILUS</i> SPP.) ON THE PACIFIC COAST	<b>Nakajima, R.</b> PLANKTONIC TROPHIC STRUCTURE IN A CORAL REEF ECOSYSTEM - CLASSICAL VERSUS MICROBIAL FOOD WEBS AND THE PRODUCTION OF MESOZOOPLANKTON

**SUNDAY, NOV 13 1300-1430 † eligible for Best Student Paper Award**

<b>Time</b>	<b>Session 40: CYPRESS</b>  <b>Evolutionary Biology II</b>  <b>Chair: Baskett, ML</b>	<b>Session 41: SPYGLASS</b>  <b>Invasion Ecology</b>  <b>Chair: Cheng, BS</b>	<b>Session 42: WINDJAMMER</b>  <b>Population Biology and Ecology</b>  <b>Chair: Gould, AL</b>
<b>1300</b>	<b>Pinheiro, H.T.</b> PALEOENDEMISM INDICATES PLEISTOCENE REFUGE ON A SEAMOUNT CHAIN AND EXTINCTION EVENTS ON THE WESTERN ATLANTIC CONTINENTAL SHELF		<b>Gould, A.L.</b> HOST-MEDIATED SYMBIOT DIVERGENCE IN A BIOLUMINESCENT VERTEBRATE-MICROBE SYMBIOSIS
<b>1315</b>	<b>†Hoban, ML</b> ORIGINS OF HAWAIIAN REEF FAUNA: EVIDENCE FROM SISTER PAIRS OF PACIFIC BLENNIES	<b>†Scott, Z.R.</b> STRENGTH OR NUMBERS: EFFECTS OF COMPETITION AND RECRUITMENT ON THE SUCCESS OF AN INVASIVE BRYOZOAN	<b>Buckland-Nicks, J. A.</b> ENDEMIC STICKLEBACK ON HAIDA GWAIL IS HOST TO RARE DINOFLAGELLATE WITH COMPLEX HISTORY
<b>1330</b>	<b>Johnston, E. J.</b> PHYLOGENOMIC ANALYSIS OF <i>POCILLOPORA</i> CORALS PROVIDES EVOLUTIONARY INSIGHTS INTO RECENT DIVERSIFICATION	<b>†Giddens, J.L.</b> REEF-FISH ASSEMBLAGE-LEVEL EFFECTS OF THE INTRODUCED GROUPER ( <i>CEPHALOPHOLIS ARGUS</i> ) IN HAWAII	<b>†Curtis, J.S.</b> RESOURCE USE OF INVASIVE LIONFISH AND A NATIVE PREDATOR COMPARED USING STABLE ISOTOPE ANALYSIS OF EYE LENSES
<b>1345</b>	<b>Baskett, M.L.</b> QUANTIFYING THE CAPACITY FOR GENETIC ADAPTATION TO OCEAN ACIDIFICATION IN TROPICAL CORALS		<b>†Portner, E. J.</b> VARIABILITY IN THE TROPHIC ECOLOGY OF A MESOPELAGIC PREDATORY FISH ACROSS THE NORTH PACIFIC SUBTROPICAL GYRE
<b>1400</b>	<b>Lange, R.</b> STRESS TOLERANCE, MULTIPLE STRESSORS, AND EVOLUTION	<b>Davis, A.C.D.</b> EFFECTS OF INVASIVE PACIFIC LIONFISH ON A NATIVE CORAL-REEF FISH	<b>†Liggin, L. M.</b> UNDER PRESSURE: BIOMECHANICS OF BUOYANCY IN BULL KELP ( <i>NEREOCYSTIS LEUTKEANA</i> )
<b>1415</b>	<b>Mackie, J. A.</b> LINKING COPPER AND OTHER FACTORS IN THE SPREAD OF MARINE FOULING SPECIES	<b>†Srednick, G.S.</b> INFLUENCE OF THE STRUCTURE OF AN INVASIVE ALGA ON THE DISTRIBUTION AND BEHAVIOR OF FISHES	<b>†Moscoso, J.A.</b> ASSORTATIVE MATING IN THE SEA URCHIN <i>LYTECHINUS VARIEGATUS</i> : COLOR VARIATION, GAMETE COMPATIBILITY AND PATTERNS OF AGGREGATION

## **POSTER TITLES**

\* indicates presenting author

† indicates eligibility for Best Student Paper/Poster Award  
Posters will be displayed in the Monterey Ballroom by number

**Presenters: Please have your poster on display at the correct number  
by no later than 08:45am.**

1. †Alma, L\*, Fiamengo, C, Padilla-Gamino, J. L.  
PHYSIOLOGICAL RESPONSES OF PURPLE-HINGE ROCK SCALLOP TO INCREASED PCO<sub>2</sub> AND TEMPERATURE
2. Ambat, D.S.\*, Kashef, N.S, Stafford, D.M., Sogard, S.M.  
EFFECTS OF HYPOXIA ON REPRODUCTIVE OUTPUT IN BLUE (*SEBASTES MYSTINUS*) AND BROWN (*SEBASTES AURICULATUS*) ROCKFISHES
3. Amir, C.A.\*, Edwards, C.B., Carter, A.L., Eynaud, Y., Sandin, S.A., Smith, J.E.  
INVASION DYNAMICS AND POTENTIAL REMOVAL STRATEGIES OF *RHODACTIS HOWESII* AT PALMYRA ATOLL
4. Andersen, M.J.\*, Kelly, E.L., Smith, J.E.  
IMPLICATIONS OF EL NIÑO FOR SOUTHERN CALIFORNIA'S KELP FORESTS: EFFECTS OF TEMPERATURE ON INVASIVE *SARGASSUM HORNERI*
5. Bachhuber, S.M.\*, Wong, J.M., Hoshijima, U.H., Johnson, K.M., Sugano, C.S., Hofmann, G.E.  
TRANSGENERATIONAL IMPACTS OF PH AND TEMPERATURE ON EARLY STAGE PURPLE SEA URCHINS, *S. PURPURATUS*
6. Bagur, M.\*, Gutiérrez, J.L., Arribas, L.P., Palomo, M.G.  
BIVALVES AS ECOSYSTEM ENGINEERS IN PATAGONIAN ROCKY SHORES
7. Bear Magallanes, S.E.\*, Logan, C.A., Palumbi, S.R.  
THE ROLE OF ACCLIMATION ON THERMAL LIMITS OF THE CALIFORNIA MUSSEL, *MYTILUS CALIFORNIANUS*
8. Beckwith, M.\*, Boyer, K.A., Peck, M.R., Mattiasen, E., Kashef, N.S., Stafford, D., Hamilton, S.L., Sogard, S.M., Logan, C.A.  
METABOLIC SHIFTS IN WHITE MUSCLE OF JUVENILE COPPER ROCKFISH IN RESPONSE TO CHRONIC HYPOXIA AND LOW PH EXPOSURE
9. Behrens, M.D.\*, Troyer, S.M.  
OH MY OYSTERS: DETECTING AN ANOMALOUS RECRUITMENT EVENT OF PACIFIC OYSTERS USING CITIZEN SCIENCE
10. Belak, C.A.\*, Kough, A.S., Cronin, H., Skubel, R., Stoner, A.  
SHELLS SHOW SENEESCENCE: A BAHAMIAN MPA PROTECTS QUEEN CONCH WITHIN ITS BORDERS, BUT LOW RECRUITMENT SUGGESTS FUTURE INEFFICACY

11. **Bennett, A.E.\***, **Siletto, E.**, **Borchers, A.**, **Litvin, S. Y.**  
AN ACCESSIBLE PH CONTROL SYSTEM TO ANALYZE THE GROWTH OF  
INTERTIDAL ORGANISMS IN ACIDIC CONDITIONS
12. **Blondheim, O.N.\***, **Briseño-Avena, C.**, **Luo, J.Y.**, **Sponaugle, S.**, **Cowen, R.K.**  
DIEL VERTICAL MIGRATION OF HYDROMEDUSAE AT HIGH RESOLUTION IN THE  
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196. **Yarbrough, Alora\* , Martin, K. L. M.**  
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197. **Yeager, M.E.\* , Hovel, K.A.**  
SCALING UP: USING AN INDIVIDUAL BASE MODEL TO EXAMINE THE EFFECTS OF HABITAT STRUCTURE ON NURSERY HABITAT FUNCTION
198. **Yoshioka, R.M.\* , Galloway, A.W.E.**  
INTEGRATING PHOTOGRAPHY INTO NATURAL HISTORY, SCIENCE, AND COMMUNICATION
199. **Zill, J.\* , Donahue, M.J., Schlieman, C.**  
MESOPREDATOR RELEASE: MORAY EELS INCONSPICUOUSLY PREDOMINATE HEAVILY FISHED REEFS

200. **Zimmermann, S.A.\***, **Edmunds, P.J.**

MICROHABITAT SELECTION BY JUVENILE SCLERACTINIANS AND OCTOCORALS  
IN ST. JOHN, U.S. VIRGIN ISLANDS

201. **Zippay, M.L.**, **Hosek, K.E.\***

THE CELLULAR STRESS RESPONSE OF *MYTILUS EDULIS* TO TEMPERATURE  
VARIATION AND PREDATION RISK

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## **EXHIBITORS PRESENT AT SUNDAY POSTER SESSION**

- Marine Reserves Program, Oregon Department of Fish and Wildlife
- CenCOOS (Aric Bickel)
- CSU Monterey Bay/NOAA Research Experience for Undergraduates (REU) program (Corey Garza)

Alongside our usual range of topics, the meeting includes sessions of contributed talks focused on the Special Topics listed below. Please see the schedule for session times and locations.

## **FRIDAY: SPECIAL TOPICS FOR CONTRIBUTED TALKS**

- **Variability in the Strength of Top-Down Control:** This session honors Bob Paine's contribution to understanding how predators shape the structure and function of ecological communities, while exploring new ideas about the factors that govern the strength of top-down control. (Chairs: Jennifer Ruesink, University of Washington, and Chris Harley, University of British Columbia)
- **Evaluating Marine Protected Areas:** This session explores the performance of marine protected areas, and includes studies with diverse approaches ranging from field surveys and monitoring, to modeling efforts that evaluate network performance. (Chairs: Alexandra Barron, Canadian Parks and Wilderness Society; Emily Saarman, UC Santa Cruz)
- **Seascape Genetics:** This session explores ways to advance the use of seascape genetic methods to illuminate marine population structure and local adaptation, including efforts to meet the goals of ecosystem-based management. (Chair: Eric Crandall, CSU Monterey Bay)
- **Coralline Algae in the NE Pacific:** This session focuses on the biodiversity, biogeography, and ecology of coralline algae, including their value as model organisms for studies of ocean acidification and biomechanics. (Chairs: Patrick Martone, University of British Columbia; Paul Gabrielson, UNC Chapel Hill)
- **Conservation Technologies:** This session explores new technologies and methodologies that augment our traditional approaches to understanding natural history, improve our ability to manage resources, or transform the speed with which we can respond to rapidly unfolding events. (Chair: Sean Anderson, CSU Channel Islands)

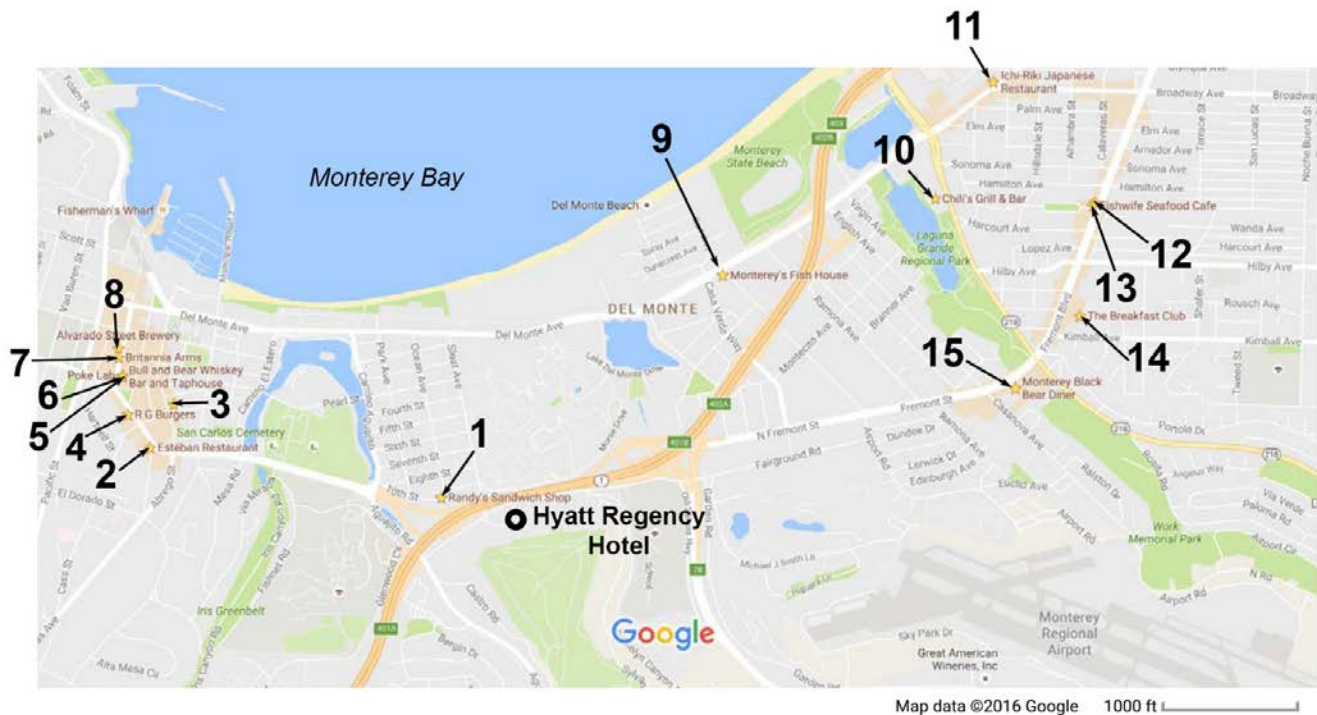
## **SATURDAY: SPECIAL TOPICS FOLLOWING PRESIDENTIAL SYMPOSIUM**

- **Comparative/Biogeographic Ecology:** Population and community ecology at biogeographic scales including the use of experiments that examine geographic variation in ecological processes, studies of range limits, or other large-scale questions. (Chair: Emmett Duffy, Smithsonian Institute)
- **Climate Change and Phenology:** Incorporating natural history information to understand responses of communities and ecosystems to a changing environment. (Chair: Mary O'Connor, University of British Columbia)
- **Genetic and Genomic Approaches to Ecology:** New studies using genetic or genomic tools to examine questions about organismal biology, ecology, physiology, and evolution. (Chair: Rick Grosberg, UC Davis)
- **Microbial and Disease Ecology in a Changing Ocean:** Advances in understanding the role of microorganisms in the ecology of plants and animals, including the ecology of disease and host-pathogen interactions. (Chair: Drew Harvell, Cornell University)

## Dr. Mike Graham's Recommended Local Restaurants

(within ~1.0 to 2.0 miles of the Hyatt Regency Hotel)

*"I have been to every one -- they are all great." – Mike Graham*



- (1) **Randy's Sandwich Shop** (1193 10th St, Monterey). Phone: (831) 375-9161.
- (2) **Esteban Restaurant** (Casa Munras Garden Hotel & Spa; 700 Munras Ave, Monterey). Phone: (831) 375-0176.
- (3) **Ambrosia Indian Bistro** (565 Abrego St, Monterey). Phone: (831) 641-0610.
- (4) **RG Burgers** (570 Munras Ave, Monterey). Phone: (831) 372-4930.
- (5) **Bull and Bear Whiskey Bar and Taphouse** (479 Alvarado St, Monterey). Phone: (831) 655-3031.
- (6) **Poke Lab** (475 Alvarado St, Monterey). Phone: (831) 200-3474.
- (7) **Britannia Arms** (444 Alvarado St, Monterey). Phone: (831) 656-9543.
- (8) **Alvarado Street Brewery** (426 Alvarado St, Monterey). Phone: (831) 655-2337.
- (9) **Monterey's Fish House** (2114 Del Monte Avenue, Monterey). Phone: (831) 373-4647.
- (10) **Chili's Grill and Bar** (1349 Canyon Del Rey Boulevard, Seaside). Phone: (831) 393-0598.
- (11) **Ichi-Riki Japanese Restaurant** (1603 Del Monte Boulevard, Seaside). Phone: (831) 394-7733.
- (12) **Turtle Bay Taqueria** (1301 Fremont Boulevard, Seaside). Phone: (831) 899-1010.
- (13) **Fishwife Seafood Cafe** (789 Trinity Avenue, Seaside). Phone: (831) 394-2027.
- (14) **Breakfast Club** (1130 Fremont Boulevard, Seaside). Phone: (831) 394-3238.
- (15) **Black Bear Diner** (2450 N Fremont St, Monterey). Phone: (831) 645-9700.