

Western Society of Naturalists

106th Meeting Program



San Diego, California, USA

Western Society of Naturalists

~ 2025 ~

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QUICK LINKS

[Schedule-at-a-Glance](#)

[Abstract Book](#)

[Code of Conduct Reporting Form](#)

Instagram: [@WesternSocietyofNaturalists](#)

The Western Society of Naturalists
enthusiastically thanks the following
for supporting the 2025 annual
meeting. *Thank you!*



NOVEMBER 6 - NOVEMBER 9, 2025

Welcome to the 106th Annual Meeting of the Western Society of Naturalists!

WSN's roots can be traced back to 1910 when a group of biologists, concerned about the lack of scientific meetings on the West Coast, formed the Biological Society of the Pacific (BSP; call this our larval phase). The BSP was intended to include "any person interested in scientific work of a research nature." In 1915, the American Society of Naturalists invited the BSP to join as a Pacific chapter under the ASN banner. Although the BSP voted in favor, the merger was eventually rejected by the ASN Executive Committee, who felt that WSN might not be sufficiently selective in admitting members. Thus, the BSP formally metamorphosed into the Western Society of Naturalists in 1916.

The first annual meeting of the society that would become WSN featured four scientific presentations and a dinner. Since then, our meetings and our society have grown substantially. We are excited to welcome over 600 participants to this year's meeting, hundreds of excellent talks, and a variety of social events to promote networking among different groups. We are also in a period of increased commitment to our society's diversity, equity and inclusion of all naturalists. We proudly welcome *everyone* who is interested in scientific work of a research nature.

Thanks to Volunteers – we appreciate you!

This meeting could not happen without substantial volunteer contributions from many people. The WSN Secretariat thanks the President and President-elect, Treasurer (Andy!), Student Committee, the Diversity, Equity and Inclusion Committee, the local Member-at-Large, the judges of posters and talks, the professional and student volunteers, and all those who keep our society going!

WSN CODE OF CONDUCT

The annual meeting is intended to foster the exchange of scientific ideas, provide participants with an opportunity to present research findings, establish and renew collaborations, facilitate recruitment of students and staff to laboratories and institutions, and to learn, teach, and network with an international community of scientists. WSN is committed to creating an environment in which all attendees can participate without harassment, discrimination, or violence of any type.

All meeting participants must be treated with respect, regardless of race, ethnicity, gender identity, sexual orientation, ability, religion, language, professional status, institution, or age. All meeting participants including, but not limited to, members, volunteers, attendees, vendors, exhibitors, contractors, and guests are expected to abide by the WSN Code of Conduct, which applies to all events at the meeting, all meeting-related activities, and social media communications associated with WSN.

Expected behaviors include (but are not limited to):

- Treating all participants and meeting facilities with respect and consideration.
- Communicating openly with respect for others, critiquing ideas not individuals.
- Avoiding personal attacks directed toward others.
- Respecting the rules and policies of the meeting venue, hotels, or any venue.
- Abiding by principles of academic integrity and ethical professional conduct.

Unacceptable behaviors include (but are not limited to):

- Behaviors that imply or indicate that someone does not belong at the WSN meeting based on any personal characteristic or identity.
- Any unwanted attention, sexual advances, and comments about appearance.
- Verbal harassment, including comments, epithets, slurs, threats, and stereotyping that are offensive, hostile, disrespectful, or unwelcome.
- Non-verbal harassment, including actions or distribution, display, or discussion of any written or graphic material toward an individual or group that ridicules, denigrates, insults, belittles, or shows hostility, aversion, or disrespect.
- Bullying, intimidation, stalking, shaming, and assault.
- Retaliation for reporting harassment.
- Reporting an incident in bad faith.

Consequences: The WSN Secretariat reserves the right to enforce this Code of Conduct in any manner deemed appropriate. Violators will first be asked to cease these behaviors. Failure to comply may result in escalating consequences including expulsion from the meeting, prohibition from future meetings, or revocation of WSN membership.

Reporting: If you are the subject of unacceptable behavior or have witnessed any such behavior, please notify a member of the WSN Secretariat and/or Diversity, Equity, and Inclusion Committee (DEIC) either on-site or via email (secretariat@wsn-online.org; deic@wsn-online.org). You can also communicate violations by completing the [online reporting form](#), which presents an opportunity for anonymity. Anyone experiencing or witnessing behavior that constitutes an immediate or serious threat to individual or public safety is advised to contact security or local law enforcement.

ACCESSIBILITY

- **Presentations:** Subtitles will be auto-generated for all presentations and shown live on the big screen. The front row of seating is reserved for those who will benefit most from real-time captioning (e.g., attendees who are deaf or hard of hearing, with learning disabilities, or those for whom English is a second language). If you have feedback on improving captioning for future meetings, please bring your thoughts to the Business Meeting or share with a member of the DEIC.
- **Food:** Vegetarian, vegan, and gluten-free options will be available whenever food is provided at the conference venue. We will make every effort to mark these options. If you have dietary restrictions that are not met, please let us know so that we can be more inclusive at future meetings.
- **Restrooms:** We plan to designate one or more restrooms as gender-inclusive for conference attendees. Please check posted signage during the meeting or ask a DEIC member if you have trouble locating a nonbinary restroom.
- **Lactation Room:** The hotel will have a lactation room available. Please ask at the WSN registration desk or the hotel front desk.
- **Priority Seating (Poster Sessions and Socials):** Seating is limited at poster sessions and events like the Attitude Adjustment Hour (AAH). We will provide priority seating to serve those with physical limitations (e.g., people with physical disabilities, attendees who are pregnant or accompanied by small children, elderly participants). Though everyone is welcome to use these seats, we ask folks to yield to anyone in greater need.

- **Noise control:** The conference rooms will be very full during oral presentations, and side conversations create unhelpful noisy distractions. If you wish to chat, please step outside onto the Deck, just outside the meeting spaces.
- **Student Travel Awards:** The Student Committee used a standardized scoring rubric to evaluate 179 travel award applications this year. We were able to award a total of \$5,020 to 12 awardees to help offset the costs of attending the meeting.
- **Getting to the Hotel/Around in San Diego:** There is no airport shuttle provided by the DoubleTree; however, there is public transit in San Diego, including bus and light rail. Google Maps is a good resource for trip planning.
- **On-site Parking at the Hotel:** On-site parking in the hotel garage is \$40 per night, or \$4/hour for short-term visitors. There is no EV charging at the hotel but there are charging stations at the shopping mall next door.
- **Affinity Group Mixers:** Affinity group mixers are designed to help members from underrepresented groups gather, build community, and bolster a sense of belonging within WSN. BIPOC, LGBTQIA2S+, First Generation College Students (Past and Present), and Disability groups can be found on the schedule. Please note that you must identify as a member of the group that you intend to join.

DEI COMMITTEE PROGRAMMING

We have numerous programs offered by the Diversity, Equity and Inclusion Committee (DEIC). These activities and efforts include:

- **Affinity stickers:** Available for name badges at registration, these stickers are used to identify first-time attendees and one's membership to various underrepresented groups to help build community within WSN.
- **Mentorship program:** This program is designed to help first-time attendees and students network with professionals and senior scientists. The **mentorship mixer** (open to pre-registrants) is Friday during lunch. If you signed up, you should have received instructions from the organizers. We are excited about this initiative to make the WSN meetings more inclusive! The mentorship program is sponsored by [CSU COAST](#). Contact deic@wsn-online.org with questions.
- **DEI Symposium:** Our symposium will provide a forum for discussing the co-creation of scientific knowledge in ways that equitably include the original and contemporary stewards of place. The symposium features speakers from the local Kumeyaay community. This session was made possible by the generous support of [CSU COAST](#).
- **Code of Conduct:** WSN has a [Code of Conduct](#). Please report any concerns or issues directly to a member of the DEIC or the Secretariat, or by using the [online reporting form](#) (anonymous or self-identifying, at your discretion), which is visible only by the DEIC.
- **New DEIC Members:** We are currently soliciting for one **new STUDENT member** for a three-year term (if you graduate during that period you may finish your term, if you choose). Get in touch with us (deic@wsn-online.org) if you are interested in assisting with these efforts and developing new ways to make WSN more inclusive and accessible.
- **Demographic survey:** To help us make future WSNs more inclusive, we highly encourage folks to complete the demographic survey. A QR code is available at the DEIC table near registration.

HOW TO JOIN THE STUDENT COMMITTEE

The Student Committee solicits self-nominations from our student membership to join for two-year terms (undergraduates serve for one year). We have three positions to fill this year (2 graduate and 1

undergraduate), replacing outgoing members for the 2026 and 2027 annual meetings. The [self-nomination form](#) closes on October 31st, 2025. Appointees will be notified at the 2025 conference.

NETWORKING AND SOCIALIZING

One of the best parts of WSN meetings is the opportunity to meet new people, network, and catch up with friends. There are several ways to do this:

- **Go online:**
 - We are online at <https://www.wsn-online.org>.
 - WSN is on Instagram @westernsocietyofnaturalists. If you have an opportunity that would be appropriate for distribution via the WSN social media accounts (fellowships, small grants, student opportunities, etc.), please reach out to the Secretariat, Student Committee, or DEI Committee through these platforms.
 - Want your work, field site, study organism, or recent publication to be featured on WSN's Instagram feed? Send a photo and a short blurb to @westernsocietyofnaturalists. Material will be accepted at any time on a rolling basis.
- **Thursday Night Mixer:** Students *who pre-registered* can join us at the opening mixer on Thursday from 7pm-10pm at Novo Brewing in the Mission Valley Mall, 1640 Camino del Rio N, San Diego, CA 92108. There will be light catering funded by the California Sea Grant. It is a 20-minute walk from the hotel. This is a great opportunity to meet new people!
- **Undergraduate Student Mixer:** Are you an undergraduate student? Attend the undergraduate mixer on Friday from 1:00pm-1:30pm to meet other undergraduates. This event takes place right after the mentor-mentee lunch on the Patio.
- **Attend an affinity group mixer**
 - BIPOC, LGBTQIA2S+, First Generation College Students (Past and Present), and Disability groups can be found on the schedule.
 - Contact deic@wsn-online.org with questions.

AUCTION/RAFFLE

Proceeds from the auction and raffle will support the Student Travel Fund!

- **Silent Auction:** Items will be available for viewing in the Great Room starting Thursday Nov. 6th at 6pm and closing Saturday Nov. 8th at 8:00pm, just before the Presidential Address. Winners will be announced at the end of the special live auction ceremony! We will be accepting PayPal, checks, and Square payments. View items in person and bid using the paper sheets provided.
- **RAFFLE:** Raffle tickets can be purchased at the merch desk starting Friday morning and during the gala. There will be multiple raffle prizes including a grand prize (hand-made WSN-themed quilt!). The raffle will take place on Saturday 11/8 during the Gala at 9:30pm! You must be present to win! Raffle tickets are \$5 each (discounts when you buy many at a time).
- **Submission** deadline for donating auction items is Nov. 1st (unless you are bringing the item yourself in person). Please contact students@wsn-online.org if you plan to bring something to the conference so we can get it added to the online auction site!

STUDENT WORKSHOP (THURSDAY)

Confronting Environmental Challenges through Writing

- Location: Great Room
- Speaker: Gabriel Cortez <https://gabrielmcortez.com/>

This interactive writing workshop will guide students in reconnecting with their core purpose and motivation for doing marine research, helping them articulate their impact with confronting environmental challenges that can seem too vast for individual influence.

STUDENT ORGANIZED SYMPOSIUM (THURSDAY)

Exaggeration Bias and Transparency in Ecology

Chair: Angelina Zuelow (Student Committee)

Location: Great Room

This symposium will include two speakers (Dr. Kaitlin Kimmel-Hass and Dr. Tim Parker) who have studied how common research practices can lead to unreliable published results. They will explore how incentives and the individual choices of researchers can lead to unreliable and exaggerated results and how scientists are now promoting transparency throughout the research process.

Speakers

- Dr. Tim Parker - Whitman College
- Dr. Kaitlin Kimmel-Hass - Global Water Security Center University of Alabama

DIVERSITY, EQUITY AND INCLUSION SYMPOSIUM (FRIDAY)

Uplifting Indigenous Voices: Perspectives from Kumeyaay Nation members and collaborators

Chairs: Danielle Mchaskell, Amy Olsen, and Steve Lonhart

Location: Great Room

As academic science continues to evolve in its practice, a greater appreciation for multiple knowledge systems is emerging. Additionally, addressing the climate crises amidst accelerating changes nationally is an "all hands on deck" situation, and thus it is vital to include all knowledge holders and ways of understanding to generate workable conservation solutions. This year, the WSN Conference is being held on the traditional and unceded lands of the Kumeyaay Peoples. As a follow-up from last year's symposium on ethical partnerships with Indigenous communities, this symposium will give space for conversation with Kumeyaay community members, knowledge holders and academic collaborators to discuss pathways to co-creating science across knowledge systems that equitably includes the original and contemporary stewards of place.

Funding for this session was provided by CSU COAST.

Panelists:

- Dr. Heather Ponchetti Daly, Kumeyaay Elder, Faculty in Indigenous Studies, Environmental Studies, and Law at UCSD
- Dr. Stan Rodriguez, Kumeyaay Elder, Provost – Kumeyaay Community College
- Mike Connolly, Kumeyaay Elder, Resource economist, PhD Candidate in Anthropology
- Chag Lowry, Executive Director – Indigenous Futures Institute, Author/director
- Coach Jules Jackson, Founder of Coastal Defenders
- Kelsey Miller, Founder – TIDES program, PhD Candidate – Simon Fraser University

PRESIDENTIAL SYMPOSIUM (SUNDAY)

Advice to early career professionals and graduate students on adapting to an evolving scientific landscape

Organizer: Matthew Edwards

Location: Great Room

New technologies and ways of thinking are changing the way that scientists study marine ecosystems. From machine learning to remote sensing approaches, technology is helping to change the way that we study marine ecosystems and the methods that we use to train the next generation of marine ecologists. Similarly, the evolution of scientific approaches has altered the research topics we are exploring. This symposium will explore emerging interfaces between technology, philosophy, and marine ecology in both the research and education spaces. The symposium includes an opportunity for a public dialog between audience members and the session speakers.

Speakers

- Terrie Klinger, University of Washington
- Paul Dayton, UC San Diego
- Bruce Menge, Oregon State University
- Megan Dethier, University of Washington

PRESENTATIONS

Contributed Talks, Plenary and Symposia

The contributed talks will be held in concurrent sessions in different breakout rooms in the hotel.

- 15-minute talks include time for Q&A, unless the speaker uses all 15 minutes.
- 5-minute talks will have a multi-talk Q&A period at the conclusion of the speed talks.

Please exercise courtesy when moving between breakout rooms by opening/closing the doors quietly and only after the speaker has finished (i.e., after the applause). To minimize background noise during the sessions, please take your conversations outside to the patio.

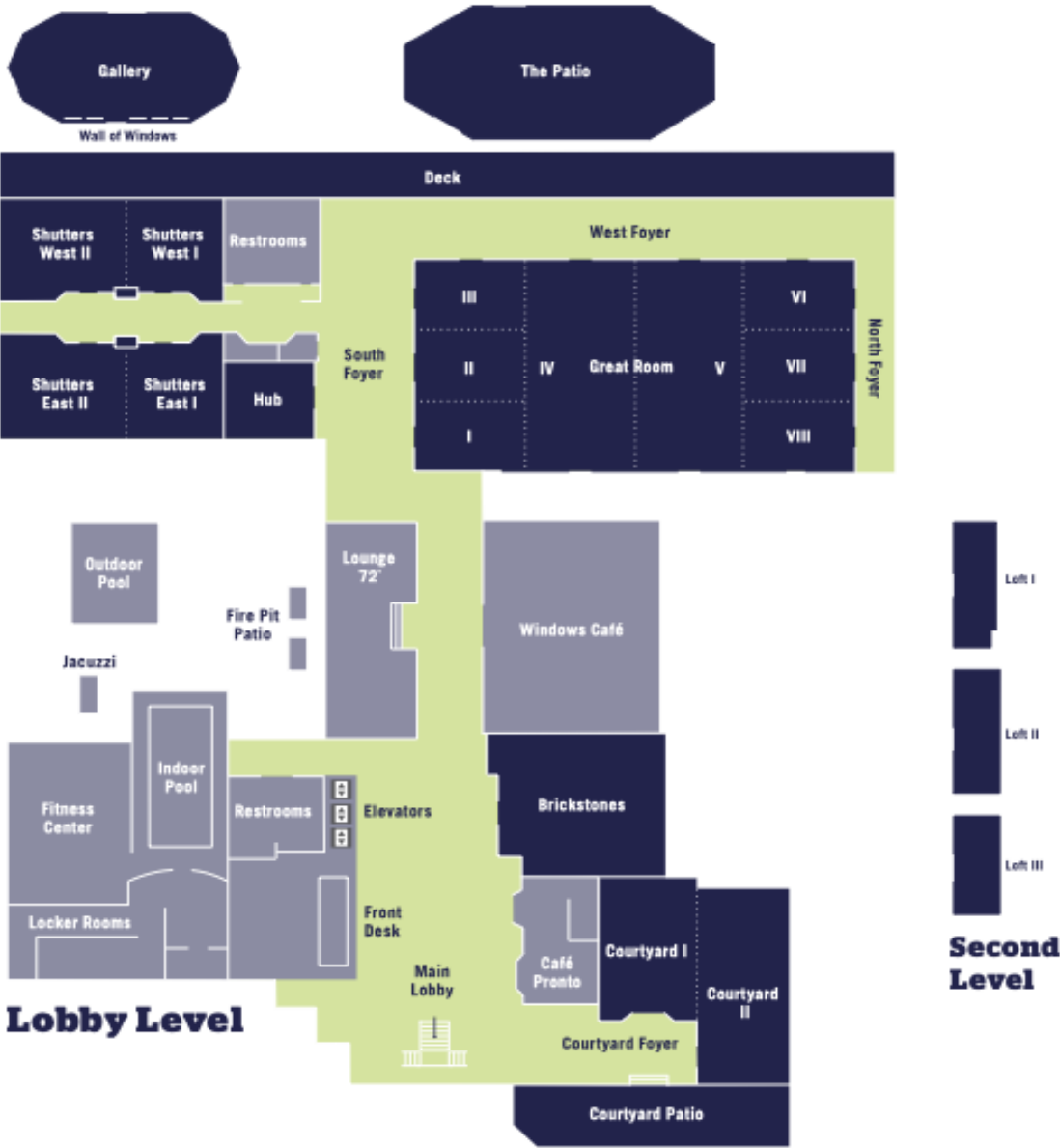
Plenary and symposia will be held in large-capacity rooms, with an integrated Q&A period during or at end of scheduled time.

Posters

There will be two poster sessions Saturday afternoon; each presenter will be assigned to attend their poster during one of the back-to-back poster sessions. The presenter will stand beside their poster during their assigned poster session, discuss their research, and answer questions about it. It is an opportunity to meet people interested in the work, exchange ideas about the project, and converse about other aspects of science. Judging for best student poster will take place throughout each session, and questions addressed to presenters constitute one of the criteria on which student posters are judged.

All poster presenters are requested to put up posters between 1 and 1:30 pm. All presenters must remove their posters promptly at 3:30 pm so poster boards can be removed to set up for dinner.

HOTEL FLOOR PLAN



Floor Map Key

-  Elevators
-  Meeting & Event Space
-  Amenities/Services
-  Foyer Space

SCHEDULE AT A GLANCE

THURSDAY, NOVEMBER 6, 2025

TIME	EVENT INFORMATION	LOCATION
1400-2000	REGISTRATION DESK OPEN	<i>Foyer</i>
1430-1630	STUDENT WORKSHOP - <i>Reclaiming Purpose: A writing workshop focused on confronting environmental challenges</i> Speaker: Gabriel Cortez	<i>Great Room</i>
1700-1845	STUDENT ORGANIZED SYMPOSIUM <i>Exaggeration Bias and Transparency in Ecology</i> Speakers: Dr. Tim Parker & Dr. Kaitlin Kimmel-Hass	<i>Great Room</i>
1900-2200	STUDENT MIXER – Sponsored by California Sea Grant <i>** NOT an open event – only pre-registered student attendees **</i>	<i>Novo Brewing</i>

FRIDAY, NOVEMBER 7, 2025

TIME	EVENT INFORMATION	LOCATION
0700-1600	REGISTRATION DESK AND MERCHANDISE OPEN	<i>Foyer</i>
0800-0815	WELCOME REMARKS Secretariat and Diversity, Equity, and Inclusion Committee	<i>Great Room</i>
0815-0945	DEI SYMPOSIUM - <i>Uplifting Indigenous Voices</i> Speakers: Dr. Heather Ponchetti Daly, Dr. Stan Rodriguez, Michael Connolly, Chag Lowry, Coach Jules Jackson, Kelsey Miller	<i>Great Room</i>
0945-1000	COFFEE BREAK	<i>Foyer</i>
1000-1015	LIFETIME ACHIEVEMENT AWARD: David Duggins Nominators: Aaron Galloway (and many others)	<i>Great Room</i>
1015-1030	RAFE SAGARIN AWARD SERVICE TO THE SOCIETY AWARD	<i>Great Room</i>

1030-1050	NATURALIST OF THE YEAR: Tonya Huff Nominator: Drew Talley	<i>Great Room</i>
1100-1200	CONTRIBUTED TALKS & SPEED TALKS - 6 sessions	<i>Shutters West I&II Shutters East I&II Gallery Brickstones Courtyard 1 Courtyard 2</i>
1200-1330	LUNCH - <i>On your own</i>	
1200-1300	MENTOR-MENTEE LUNCH (<i>RSVP required</i>)	<i>The Deck</i>
1300-1330	UNDERGRADUATE SOCIAL	<i>The Patio</i>
1330-1545	CONTRIBUTED TALKS - 6 sessions	<i>Shutters West I&II (150) Shutters East I&II Gallery Brickstones Courtyard 1 Courtyard 2</i>
1545-1600	COFFEE BREAK	<i>Foyer</i>
1600-1800	CONTRIBUTED TALKS - 6 sessions	<i>Shutters West I&II Shutters East I&II Gallery Brickstones Courtyard 1 Courtyard 2</i>
1800-1845	BIPOC AFFINITY GROUP MIXER* <i>Black, Indigenous, People of Color</i>	<i>Shutters West I&II</i>

1830-1915	LGBTQIA2S+ AFFINITY GROUP MIXER* <i>Lesbian, Gay, Bisexual, Transgender, Queer/Questioning, Intersex, Asexual, Two-spirit +</i>	Shutters East I&II
1800-1915	Kelp forest documentary screening – “ <i>Sequoias of the Sea</i> ”	Great Room
1900-2100	ATTITUDE ADJUSTMENT HOUR (AAH) (<i>appetizers; no-host/cash bar</i>)	Deck & Patio

SATURDAY, NOVEMBER 8, 2025

TIME	EVENT INFORMATION	LOCATION
0800-1000	CONTRIBUTED TALKS - 5 sessions	Shutters West I&II Shutters East I&II Brickstones Courtyard 1 Courtyard 2
1000-1015	COFFEE BREAK	Foyer
1015-1200	CONTRIBUTED TALKS - 5 sessions	Shutters West I&II Shutters East I&II Brickstones Courtyard 1 Courtyard 2
1200-1330	LUNCH - <i>On your own</i>	
1200-1245	FIRST GEN AFFINITY GROUP MIXER* <i>First generation college students – past and present</i>	Shutters West I&II

1245-1330	DISABILITY AFFINITY GROUP MIXER* <i>People with medically or self-diagnosed conditions that impact their daily activities, including (but not limited to) physical abilities, neurodivergence, and chronic illness.</i>	Shutters East I&II
1230-1330	JEMBE SESSION: HOW TO PUBLISH A PAPER (please eat first)	Brickstones
1330-1430	POSTER SESSION I <i>Even-numbered posters</i>	Gallery & Patio
1420-1440	COFFEE BREAK	Foyer
1430-1530	POSTER SESSION II <i>Odd-numbered posters</i>	Gallery & Patio
1630-1800	ANNUAL BUSINESS MEETING	Shutters West I&II
1830-1900	HAPPY HOUR (no-host/cash bar)	Foyer
1900-2000	BANQUET (food provided)	Great Room
2000-2030	PRESIDENTIAL ADDRESS and BEST PRESENTATION AWARDS WSN President: Matt Edwards	Great Room
2030-2400	GALA: SILENT AUCTION, RAFFLE, MUSIC, and ENTERTAINMENT Theme: <i>Kelp Forests of the West Coast</i> Kelp trivia – co-hosted with Oregon Kelp Alliance	Great Room

*Affinity groups provide safe spaces for people with historically marginalized identities to gather, build community, and bolster a sense of belonging in WSN.

You must identify as a member of any affinity group that you intend to join.

WSN attendees are encouraged to participate in as many affinity groups as they identify with. Contact deic@wsn-online.org with questions.

SUNDAY, NOVEMBER 9, 2025

TIME	EVENT INFORMATION	LOCATION
0845-1045	CONTRIBUTED TALKS - 6 sessions	Shutters West I&II Shutters East I&II Gallery

		Brickstones Courtyard 1 Courtyard 2
1045-1100	COFFEE BREAK	Foyer
1100-1230	CONTRIBUTED TALKS - 6 sessions	Shutters West I&II Shutters East I&II Gallery Brickstones Courtyard 1 Courtyard 2
1230-1300	BREAK	On your own
1300-1430	PRESIDENTIAL SYMPOSIUM - <i>Advice to early career professionals and graduate students on adapting to an evolving scientific landscape</i> Speakers: Terrie Klinger, Paul Dayton, Bruce Menge, Megan Dethier	Great Room
1445	MEETING ADJOURNMENT	

Contributed Speed Talks

† eligible for Best Student Paper Award

Friday 11:00 - 12:00

Time	Session 1: Speed Talk Session I <i>Chair: Gretchen E. Hofmann</i>	Session 2: Speed Talk Session II <i>Chair: Florybeth La Valle</i>
	Location: SHUTTERS WEST	Location: SHUTTERS EAST
11:00 - 11:05	Karm, R.H. Pycnopalooza! A case study in the rapid mobilization to document and capture sunflower star recovery	Rivas, A.C. <i>Petrolisthes cinctipes</i> (porcelain crab) exhibits consistent thermal tolerance throughout embryonic development
11:05 - 11:10	Schiebelhut, L.M. Exploring the occurrence of a sea star wasting pathogen across multiple hosts using whole genome sequencing	Himes, L. Understanding the effects of submarine groundwater discharge on phytoplankton productivity, biomass, and community composition in coral reefs
11:10 - 11:15	Hultgren, K.M. Novel origins of marine eusociality: Evolutionary insights from Indo-West Pacific	†Anderson, G.D.; Ruttenberg, B.I.; Bills, M. Pismo Beach sand dynamics: A drone study of 2024–25 winter swells
11:15 - 11:20	Haupt, A.J. An unlimited salad bar: Are intertidal ecosystems resilient to large increases in herbivory?	†Ebner, C.A. Effects of low pH on the metabolic physiology of red abalone grown in an Integrated Multi-Trophic Aquaculture system
11:20 - 11:25	Q&A PERIOD	Q&A PERIOD
11:25 - 11:30	Taylor, S.J. Kelp needs your help: Santa Monica Bay AAUS volunteer diving opportunity	Limon, G.A. Investigating mollusk shell use in California least tern nests
11:30 - 11:35	Zepp, A. Evaluating the effects of urchin removals on kelp canopy recovery	†Campbell, D.T. Novel methods for studying digestion in large pelagic sharks
11:35 - 11:40	Jimenez, M.E. Breaking the ice: First successful settlement of cryopreserved <i>Pisaster brevispinus</i> larvae	†Triviño, T.A. Redefining participation in coastal management: Indicators from Central California MPA case study
11:40 - 11:45	†Rivas, S.F. Reproductive traits of purple sea urchins across kelp forest and barren habitats in Central California	†Holliman, D.H. Do interactions with damselfish alter coral thermal tolerance and microbiomes?
11:45 - 12:00	Q&A PERIOD	Q&A PERIOD

Contributed Talks

† eligible for Best Student Paper Award

Friday 11:00 - 12:00

Time	Session 3: Behavioral Ecology I <i>Chair: Miranda Brett Haggerty</i>	Session 4: Pollution and Toxicology I <i>Chair: Amirah Casey</i>	Session 5: Aquaculture I <i>Chair: Sierra Greene</i>	Session 6: Conservation and Restoration I <i>Chair: Kevin A. Hovel</i>
	Location: BRICKSTONES	Location: COURTYARD 1	Location: COURTYARD 2	Location: GALLERY
11:00 - 11:15	Carrillo, E. Garter snakes that vary in chemical prey preference use different aquatic prey capture tactics	†Hart, T.R. Assessment of harmful algal distribution along the U.S. West Coast via microscopy	Rounds, T. The secret sauce: A nutrient-by-nutrient approach to a new media recipe for the red alga <i>Asparagopsis taxiformis</i>	†Abrecht, M. Genomic assessment informs management of endangered northern tidewater gobies following Palisades Fire
11:15 - 11:30	†Evans, L.E.; Manriquez, E.D.; Sisneros, S.D. Habitat complexity impacts client diversity not cleaning behaviors of <i>Labroides dimidiatus</i> on reefs of Moorea, French Polynesia	Leback, E.S. Assessing the variability in types and abundance of microplastics among seasons in the Morro Bay Estuary	†Greene, S. Oceanographic variability across Gulf of Alaska mariculture sites	Boehmer, D. Incorporating acoustic recording units into coastal ecosystem monitoring protocols
11:30 - 11:45	†Bell, E.S. Handle with care: Ecological and ethical impacts of handling <i>Cryptochiton stelleri</i> in the intertidal	Szathmary, L. Development of ecological resources at risk spill response information for offshore California	Campbell, R.C. Secondary extensive aquaculture: Harvesting macroalgae in California oyster farms	†Perez, D.F. Geospatial evaluation of sea urchin population with AI for the sake of marine forest, a comparative analysis
11:45 - 12:00	†Arroyo, K.P.; Baehrel, T.; Ridley, K.S. Anthropogenic debris increases antagonistic behavior in dusky gregory damselfish, <i>Stegastes nigricans</i>	†Casey, A. Increasing temperatures magnify the uptake of tire-wear contaminant 6PPD-Q in juvenile coho salmon (<i>Oncorhynchus kisutch</i>)	†Rapp, M. The effects of effluent source, aeration, and exchange rates on growth, productivity, nutrient quality and nutrient removal rate of <i>Ulva australis</i> , <i>Devaleraea mollis</i> , and <i>Gracilaria vermiculophylla</i> in an IMTA system with white seabass (<i>Atractoscion nobilis</i>)	†Birch, A.G. Protecting clams through microhabitat refugia: Supporting indigenous food sovereignty amid climate change and predator recovery

Contributed Talks

† eligible for Best Student Paper Award

Friday 13:30 - 15:45

Time	Session 7: Conservation and Restoration II <i>Chair: Jessica A. Bolin</i>	Session 8: Fisheries, Reproduction, Dispersal, and Recruitment I <i>Chair: Carter J. Johnson</i>	Session 9: Intertidal Ecology I <i>Chair: Wendy Bragg</i>	Session 10: Evolutionary Biology I <i>Chair: Daniel Olivares-Cordero</i>	Session 11: Coral Reef Ecology I <i>Chair: Lara V. Birkart</i>	Session 12: Special Session I: Restoring resilient kelp forests: science, practice, and policy <i>Chair: Kelsey Miller; Keith Rootsart</i>
	Location: SHUTTERS WEST	Location: SHUTTERS EAST	Location: BRICKSTONES	Location: COURTYARD 1	Location: COURTYARD 2	Location: GALLERY
13:30 - 13:45	†Boisen, O.C. Evaluating the recovery of functional fish habitat in Oregon's restored eelgrass beds	†Ruffins, O. How low can you go? The impact of low nutrients on thermal performance and blade shape in giant kelp, <i>Macrocystis</i> spp. gametophytes and juvenile sporophytes	†Alley, K.A. Identifying the distribution, morphology and reproductive strategies of California native Sargassaceae brown macroalgae	†Wise, C.M. Patterns of variation in California stickleback across dynamic habitats	†Cacapit, A.J. Demographic patterns of 1000 corals across a decade	†Pinos-Sánchez, A. Multispecies modeling of kelp, urchins, dungeness crab, and sea otters: Insights for Oregon kelp forest management
13:45 - 14:00	†Kobluk, H.M. Happy as a clam: Modelling butter clam population dynamics to support indigenous food sovereignty	†Min, M.A. Evaluating spatiotemporal overlaps between Columbia River Basin Chinook and key food web components as drivers of marine survival	†Singh, A.D. Thermal stress induced gene expression during the maternal-to-zygotic transition of the purple sea urchin (<i>Strongylocentrotus purpuratus</i>)	†Erickson, K.L. Impacts of a chromosomal inversion on eelgrass performance during a simulated marine heatwave	†Dell'Antonio, E.C. Initial changes in benthic community structure on Caribbean fire coral skeletons after heatwave-driven mass mortality	†Blundell, M.Z. Weighing restoration decisions for bull kelp and giant kelp: When, how much, and what to outplant?

14:00 - 14:15	†McGreal, B.E. Understanding precision and directional bias of fisheries abundance estimates across 24 commonly used salmonid survey methods	†Code, T.J. Evaluating the effect of artificial light at night (ALAN) on predation risk in an urban lake	†Chabot, D.J. Shoreward bound? Testing possible spillover phase shift effects from subtidal kelp forests to the rocky intertidal	†Mendelson, A.A. Response to temperature differs among clones of pitcher plant rotifers	†Dahl, A.D. Exploring drivers and impacts of the reef boring urchin, <i>Echinometra</i> , on reefs of the Indo-Pacific	Miller, K.I. Carbon storage in kelp forest restoration: Comparing active sea urchin removal and marine protection in Aotearoa New Zealand
14:15 - 14:30	†Lippert, M. Coral reef restoration efforts succeed in restoring reef fish communities	†Perrello, S.A. Upwelling effects on rockfish reproductive dynamics: Implications for fisheries management in California	†Coddling, A.F. Species diversity and the maintenance of ecosystem function in an increasingly variable world	†Zhong, J.J. Competitive interactions and cave colonizations in North American blind cavefishes	†Barnas, D.M. The effect of community diversity on thermal stress tolerance of coral reefs	Balbar, A.C. Looking into the crystal ball: Forecasting future kelp hotspots and coldspots in California
14:30 - 14:45	†Dickson, T. Removal of long spined sea urchins (<i>Centrostephanus rodgersii</i>) promotes rapid recovery in temperate reef assemblages in Northeastern New Zealand	†Johnson, C.J. Are sea otters to blame? Investigating spatial changes in Southeast Alaska's dungeness crab fishery	†Bible, O. Using autonomous drones as a tool to study the impact of sea level rise on rocky intertidal communities	†Ferranti, D.A. Population structure and genetic divergence in marine threespine sticklebacks along the western coast of North America	†Chancellor, K.S. Quantifying the effect of taxonomic composition and thermal history on bleaching resistance across Pacific Island Reefs	Sullivan, D.E. Mapping kelp from above and below: Integrating kelp censuses, drones, and hydrographic surveys to track natural recruitment patterns
14:45 - 15:00	†Diaz, M. Valued coastal and ocean species for California communities: Implications for coastal management and the MPA system	†Mendoza, A.S.; Arreguín-Sánchez, F. Impacts of climate variability on the Peruvian hake fishery (<i>Merluccius gayi peruanus</i>): A modeling approach	†Ruiz-Mejía, S. The polychaete communities of five Southern California estuaries: A spatial-temporal analysis.	†Pilcher, J. Comparing patterns of speciation in depth-separated rockfish (Genus <i>Sebastes</i>) sister species pairs	†Battle, K.M.; Brown, A.J.H.; Destry, J.J. Impact of nutrients on marine macroinvertebrates in Mo'orea's coral reefs	McHugh, T.A. From collapse to comeback: Evaluating combined techniques for rapid kelp forest recovery
15:00 - 15:15	†Crandall, G.A. Comparative differential gene expression of three sea star species with varying susceptibility to sea star wasting disease	†Sandquist, M.M. Investigating the oceanographic drivers of gopher rockfish recruitment to forecast recruitment dynamics under climate change	†Bragg, W.K. Buried alive - Quantifying impacts of post-fire debris flows on the habitat, population, and recovery of endangered black abalone	†Olivares-Cordero, D. Population genetics of the Southern Californian <i>Anthopleura elegantissima</i> holobiont	†Birkart, L.V. Spatial patterns and geo-ecological implications of <i>Acropora palmata</i> mass mortality as a result of the 2023 global heatwave	Hamilton, S.L. From concept to canopy: The role of Arrays to Recover Kelp Ecosystem Vegetation (ARKEVs) in kelp restoration

15:15 - 15:30	†Miller, J.K. Digitizing the ecological zones of California's sandy beaches to assess sea level rise vulnerability	†Matthews, K.E. The relative impacts of climate change, fisheries management, and market forces on the distribution of California fishing grounds	†Dhayalan, T.S. Too hot to hunt? Acute ocean warming weakens top-down control of an intertidal foundation species	†McFarland, E.P. The convergent evolution of the pelvic suction disk: a unique key innovation in spiny-finned fishes	Agarwal, M.M. Assessing the biodiversity-biomass hypothesis in coral reef fish assemblages across a latitudinal gradient in the Western Pacific	†Sedarat, M. San Diego, you're a site for sori: Future-proofing kelp forests at the regional scale using local perspective of drivers and population structure
15:30 - 15:45	†Doran, N.C. Interacting threats of climate change and invasive species on at-risk native salmon population	†Scott-Wellman, E. Physics to fish: Habitat structure for bigeye tuna, <i>Thunnus obesus</i> , across an ecological gradient in the North Pacific Subtropical Gyre	Bahena, G.S. The effect of beach slope on pismo clam presence in Orange County, California	†Ashing-Giwa, K. Investigating the response of <i>Glycymeris septentrionalis</i> (Bivalvia) and <i>Terebratalia transversa</i> (Brachiopoda) to euxinia: Implications for mass extinctions	†Besecker, A. Galápagos coral growth and symbiont dynamics during the 2023–24 El Niño	Lonhart, S.L. After the hammers stop: Kelp persistence at Tanker Reef, Monterey Bay, CA Cancelled due to federal shutdown

Contributed Talks

† eligible for Best Student Paper Award

Friday 16:00 - 18:00

Time	Session 13: Conservation and Restoration III <i>Chair: Sean Anderson</i> Location: SHUTTERS WEST	Session 14: Kelp Forest Ecology I <i>Chair: Steve I. Lonhart; Kristen Elsmore</i> Location: SHUTTERS EAST	Session 15: Intertidal Ecology II <i>Chair: Frankie Gerraty</i> Location: BRICKSTONES	Session 16: Community Ecology I <i>Chair: Kaitlyn J. Tonra</i> Location: COURTYARD 1	Session 17: Coral Reef Ecology II <i>Chair: Raphael Ritson-Williams</i> Location: COURTYARD 2
16:00 - 16:15	Rossi, N.R. Restoring eelgrass in tidal creeks to mitigate erosion and enhance biodiversity	Gray, H.R. Changing baselines in kelp trophic ecology around the North Pacific	† Fajardo, C. Assessing seasonal changes in <i>Lottia</i> <i>gigantea</i> population size, density, and abundance and the indirect effects on local biodiversity	† Commisso, G.M. Comparing the trajectories of parasite community change for native and invasive fishes in <i>Gambusia</i> <i>affinis</i> 's native (Pearl River, LA) and invasive (upper Rio Grande, NM) ranges	† Rempel, H.S. Trophic Dynamics of Coral Reef Herbivores and Detritivores Across Shifting Resource Landscapes
16:15 - 16:30	Ozturk, G. Does conditioning of captive-bred juvenile white abalone alter their shelter seeking behavior?	† Mattioli, B. Effects of increasing temperatures on consumer-mediated nutrient dynamics: Implications for giant kelp growth	Fairbanks, S.; Escobar, W. Ocean acidification effects on the growth of the invasive European green crab, <i>Carcinus maenus</i>	† Whalen, C. How's the weather in there? Impacts of extreme weather events on parasitism in riverine fishes	Hagedorn, J.J. Analyzing Crustose coralline algae (CCA) secondary metabolites to develop a chemical toolkit for coral reef restoration efforts
16:30 - 16:45	Bolin, J.A. Projected decline of habitat refugia for red abalone (<i>Haliotis rufescens</i>) across California	† Munson, C.J. Giant kelp growth and survival in a naturally recovering kelp forest	McIntire, L.M. Fight or flight: Examining the behavioral and physiological trade-offs of intertidal ectotherms under stressful temperatures	† Davis, M.D. Invertebrates assemble! Trends in invertebrate assemblages associated with four prevalent intertidal kelps along the Oregon coast	Smelser, M. A RAD approach to addressing the <i>Porites</i> species problem on Maui
16:45 - 17:00	Fournier, R.J. Forecasting the ecological dynamics of southern sea otter restoration to the San Francisco Estuary	† Moretto, W.I. Community structure and seasonal dynamics of fishes in Oregon's kelp forests	† Kubiatko, L. A comparison of three intertidal biosurveying methods: Conventional quadrat surveying and eDNA metabarcoding of sediment and water	† Strike, M.J. Biofouling communities on Oregon offshore buoys: Potential for a locally novel ecosystem	† Gunther, M.C. Consumer pressure increases coral lesion severity over four years

Time	Session 13: Conservation and Restoration III <i>Chair: Sean Anderson</i> Location: SHUTTERS WEST	Session 14: Kelp Forest Ecology I <i>Chair: Steve L. Lonhart; Kristen Elsmore</i> Location: SHUTTERS EAST	Session 15: Intertidal Ecology II <i>Chair: Frankie Gerraty</i> Location: BRICKSTONES	Session 16: Community Ecology I <i>Chair: Kaitlyn J. Tonra</i> Location: COURTYARD 1	Session 17: Coral Reef Ecology II <i>Chair: Raphael Ritson-Williams</i> Location: COURTYARD 2
17:00 - 17:15	Anderson, S.S. They not like us? Support for conservation and mitigation across a changing coast and world	†Brown, C. Kelp on the move: Feeding fish beyond the forest?	†Feezell, M.K. Limpet grazers impact the community structure of the high intertidal	†Boone, X. Marine heatwave impacts on fish diversity mitigated within Southern California estuaries	†Mullenmeister, C.A. Successional algal communities alter biogeochemistry of seawater after coral bleaching posing implications on reef recovery
17:15 - 17:30	†Zembsch, N.S. Kiln to kelp forest: Optimizing <i>Macrocystis pyrifera</i> sporophyte growth on ceramic tile for experimental kelp restoration	†Hasshaw, L.G. A novel urchin barren formation mechanism in Aotearoa New Zealand	†Gerraty, F.D. Marine heatwave and keystone predator loss drive broad-scale decline and hinder recovery of a rocky intertidal kelp	†Dominguez, J.H. Host diversity and community composition alter microbiome structure	†Nixon, E.N. Micro-neighbors doing baby corals favors: exploring the influence of substrate biofilm on the development of coral recruit microbiomes
17:30 - 17:45	†Page, S. Developing long-term monitoring strategies for urban forests: Ground and UAV- based assessment of a modified Miyawaki forest	†Hawkins, C.K. Sea otter behavior and prey composition across alternative reef states in Monterey, CA: Applying ecological theory to kelp forest restoration	†Ramamurthy, S.V. Mysteries in the mesenteries: Trophic role of intertidal sea anemones	Merson, Z.M. Juvenile white shark aggregations exert top- down fear effects on mobile prey species	†Diaz, L.C. Shifting benthic community composition indirectly alters coral host and endosymbiont physiology through biogeochemical feedback loops
17:45 - 18:00	Q&A PERIOD	†Dotson, J.M. Kelp recruitment and chlorophyll dynamics along the Oregon coast	†Melo, F. The effects of macroalgal diets on the feeding rates of <i>Strongylocentrotus</i> <i>purpuratus</i>	†Tonra, K.J. Three decades of intertidal community change on San Juan Island, Washington	†Hannibal, K.N. Tropical seaweeds shift trait distributions along proposed environmental gradients associated with a submarine groundwater seep

Contributed Talks

† eligible for Best Student Paper Award

Saturday 08:00 - 10:00

Time	Session 18: Population Biology and Ecology I <i>Chair: Ben G. Pridonoff</i>	Session 19: Intertidal Ecology III <i>Chair: Sarah Sellke</i>	Session 20: Ecosystem Ecology I <i>Chair: Paulina Filz</i>	Session 21: Behavioral Ecology II <i>Chair: Nathan Spindel</i>	Session 22: Physiological Ecology I <i>Chair: M. Christina Vasquez</i>
	Location: SHUTTERS WEST	Location: SHUTTERS EAST	Location: BRICKSTONES	Location: COURTYARD 1	Location: COURTYARD 2
08:00 - 08:15	† Grealish, S.W. Examining aquatic invertebrates in the Snohomish Estuary	† Saldana, C. Monitoring the impact of the Portuguese Bend landslide on rocky intertidal habitats in Rancho Palos Verdes	† Lyford, H.R. Linking environmental drivers with functional traits and ecosystem functions of the temperate eelgrass, <i>Zostera marina</i>	† Torrisi, M. When dinner fights back: Inferring white shark behavioral adaptations from prey handling injuries	† McCarthy, Q. Correlation between tidal state and behavior of bottlenose dolphins
08:15 - 08:30	† Franks, J.J. Impacts of physical extremes on the reproductive output and dispersal of <i>Stephanocystis osmundacea</i>	† Staton, M. Recovery on the rocks: The role of substrate in the recovery of sea stars post sea star wasting disease	† Contractor, K. Inducible chemical defense observed in the methane mitigating red seaweed <i>Asparagopsis taxiformis</i> in response to grazers	† Kelley, D.B. Behavioral and interspecific drivers of burrowing in the salt marsh crabs <i>Leptuca crenulata</i> and <i>Pachygrapsus crassipes</i>	† Johnson, S.H. Water temperature as a physical driver of strobilation in Pacific sea nettle (<i>Chrysaora fuscescens</i>) scyphistomae
08:30 - 08:45	† Zounes, J.A. Does the herbivorous opaleye (<i>Girella nigricans</i>) feed opportunistically or does it specialize on certain algae?	† Sevigny, J. Over 120 years of episodic range extensions of nearshore marine invertebrates in the Northeastern Pacific	Anderson, K.N. Eelgrass bed morphology impact on sediment characteristics in central and south Puget Sound region	† Schlehuber, C.R. Cracking an underwater code: Novel ethogram development for Harbor Porpoises (<i>Phocoena phocoena vomerina</i>) in the Salish Sea	† Munstermann, M.J. Photoperiod and temperature regulation of gametogenesis and reproductive capacity in the purple sea urchin (<i>Strongylocentrotus purpuratus</i>)
08:45 - 09:00	† Stinnett, J.G. Cellular warfare: Density-dependent cues influence cnidocyst length in the sea anemone <i>Anthopleura sola</i>	† Sellke, S.N. The impact of predation and upwelling on invertebrate recruitment in a tropical rocky intertidal system	† Pua, C.B. Effects on habitat characteristics on planktivore and predator density on Southern California artificial reefs	† Montalto, K.H. Daily activity routines of an endothermic predator, the juvenile white shark, at the cold edge of their shifted range	† Cole, T.R. Effects of ocean acidification on the energetics and larval development of a coastal fish

Time	Session 18: Population Biology and Ecology I <i>Chair: Ben G. Pridonoff</i> Location: SHUTTERS WEST	Session 19: Intertidal Ecology III <i>Chair: Sarah Sellke</i> Location: SHUTTERS EAST	Session 20: Ecosystem Ecology I <i>Chair: Paulina Filz</i> Location: BRICKSTONES	Session 21: Behavioral Ecology II <i>Chair: Nathan Spindel</i> Location: COURTYARD 1	Session 22: Physiological Ecology I <i>Chair: M. Christina Vasquez</i> Location: COURTYARD 2
09:00 - 09:15	†Dolinar, D.P. Winners and losers: Species-specific responses of understory kelps to “The Blob” marine heatwave in California	†Parker, E.G. Stable yet shifting: A rare look at the long-term dynamics of the infauna community of intertidal sponge <i>Halichondria panicea</i>	†Ryne, A.R. Advancing rapid quantification of <i>Microcystis</i> colonies in freshwater systems using digital holography	†Quennessen, V. Population model predicts limited capacity for male promiscuity to mitigate sea turtle population decline due to increasing incubation temperatures	†Milton, M.A. Effects of pregnancy on biochemical indicators of gopher rockfish (<i>Sebastes carnatus</i>) exposed to upwelling stress
09:15 - 09:30	†Vaughan, M.A. Ghost shrimp burrow structure & behavior differ between populations and impact adjacent communities	†Miller, K.A. Indigenous tending practices improve recovery and persistence of a cultural keystone seaweed (<i>Pyropia</i>)	†Sands, K.G. The impact of a Pacific Herring spawning event on seagrass-associated pipefish in Sitka, AK	†Rough, M.E. Constellation: Caged sunflower sea stars reduce localized purple urchin density and grazing in Oregon urchin barren	†Crotty, E.G. Using eDNA to investigate the effects of hypoxia on copepods in Olympic Coast National Marine Sanctuary
09:30 - 09:45	†Monuki, K.S. Biogeographic variation in reproductive strategy in a range-expanding marine gastropod	†Pethick, N. Small but mighty? Investigating the keystone role of recruit and juvenile <i>Pisaster ochraceus</i> in the mid-intertidal zone	†Filz, P. Can fish keep supplying micronutrients in changing coastal ecosystems?	†Faulkner, L. Site fidelity and movement patterns of fishes associated with offshore platforms in the Arabian Gulf	†Eddy, B.M. Adept-o kleptos: Comparative kleptoplastic abilities in two Californian sea slugs
09:45 - 10:00	†Pridonoff, B.G. Agent-based models can predict population consequences of offshore wind noises on Gulf Of Maine harbor porpoises	†Walkes, S.A. Exploring geographic variation in performance during an ongoing range-shift	†Carpenter, D.A. Beyond interpolation: reconstructing missing ecological data with dynamical systems	†Yarbrough, S.G. Pill bugs or lil' slugs? Mimicry drives isopod invasion of San Francisco Bay wetlands	†Kohl, A.W. Juvenile pinto abalone (<i>Haliotis kamtschatkana</i>) survival, feeding intensity, and metabolic activity during ecologically relevant thermal fluctuation

Contributed Talks

† eligible for Best Student Paper Award

Saturday 10:15 - 12:00

Time	Session 23: Conservation and Restoration IV <i>Chair: Sarah A. Gravem</i> Location: SHUTTERS WEST	Session 24: Intertidal Ecology IV <i>Chair: Sarah J. Bittick</i> Location: SHUTTERS EAST	Session 25: Kelp Forest Ecology II <i>Chair: Gray Mckenna</i> Location: BRICKSTONES	Session 26: Broadening Participation in Ecology I <i>Chair: Amy Y. Olsen</i> Location: COURTYARD 1	Session 27: Physiological Ecology II <i>Chair: Kristin M. Hardy</i> Location: COURTYARD 2
10:15 - 10:30	Gravem, S.A. Supernova: The first trial reintroduction of wild sunflower sea stars to Oregon's struggling kelp forests	Araujo-Leyva, O.R. Polychaete communities are influenced by environmental variables and seasons in two coastal lagoons within the Pacific coast of Baja California, Mexico	Bergman, J.N. Evaluating the spatial- temporal dynamics of kelp-encrusting bryozoans across the British Columbia coast	Christensen, R.V. Reviving a legacy: The historic <i>Western Flyer</i> as a platform for modern marine science, education, and outreach	†Survilas, R.T. Molting mechanics: Characterizing surface temperatures during the initial molt of northern elephant seal pups
10:30 - 10:45	Prentice, M.B. Identifying the causative agent of sea star wasting disease	Graham, O.J. Deeper eelgrass meadows are refugia from disease and environmental stressors	†Shenasa, A.M.A. Beyond the visual: Detecting ecosystem transitions through soundscapes	Olsen, A.Y. A guide to conducting anti-racist conservation research	Powers, K.A. Blood physiology of Atlantic guitarfish
10:45 - 11:00	Kidd, A. On the road from wasting to recovery: Sunflower sea star eDNA characterization and survivorship studies in California.	Bittick, S.J. Impact of nutrient enrichment on anti- herbivory defenses and herbivore activity in an intertidal seaweed	McKenna, G.E.; Claar, D.C. Synthesizing disparate data for a comprehensive view of floating kelp distribution in Washington state, USA	Paganini, A. A recipe for marine STEM student success and personal growth in the nation's largest public university system	†Nguyen, T. Physiological and molecular sensitivity of early-life stage dungeness crabs and red sea urchins to ocean acidification and hypoxia
11:00 - 11:15	Hovel, K.A. Ocean acidification mediates trophic cascades in eelgrass habitat	Renssen, B.O. Linking benthic composition to microbial ecology and nutrient cycling in isolated SoCal rocky intertidal tidepools	†Rumsey, K.J. PurpleCline: The size class of purple sea urchins affects their behavioral response to young sunflower sea stars	Paganini, A. Breaking down financial barriers to ocean and coastal fieldwork	Hardy, K.M. Survival on the rocks: How shore height shapes metabolism, stress tolerance & behavior in acorn barnacles

Time	Session 23: Conservation and Restoration IV <i>Chair: Sarah A. Gravem</i> Location: SHUTTERS WEST	Session 24: Intertidal Ecology IV <i>Chair: Sarah J. Bittick</i> Location: SHUTTERS EAST	Session 25: Kelp Forest Ecology II <i>Chair: Gray Mckenna</i> Location: BRICKSTONES	Session 26: Broadening Participation in Ecology I <i>Chair: Amy Y. Olsen</i> Location: COURTYARD 1	Session 27: Physiological Ecology II <i>Chair: Kristin M. Hardy</i> Location: COURTYARD 2
11:15 - 11:30	Selgrath, J.C. Marine protected areas and the California public: Access, awareness, and priorities	Suen, K.J. Recipient community structure affects prey preferences of a range-shifting predator	†Wiley, B.T. “With fronds like these, who needs enemies?”: Associational seaweed defense reduces sea urchin grazing on bull kelp	Beas-Luna, R. Baja Californian kelp forests: From exploration to restoration	†Richmond, K.A. Salt fat acid meat: Using lipids and proteins to investigate ocean acidification tolerance in a cold-water, solitary coral
11:30 - 11:45	Scheuerell, M.D. A new method for identifying discrete clusters of multiple time series Cancelled due to federal shutdown	Zuelow, A.N. Surfgrass vs kelp: Higher thermal tolerance and increased canopy cover in surfgrasses after disturbance	White, J.W. Spatial population models reveal tradeoffs involved in making spatial shifts in marine reserves to improve kelp forest resilience	Dawson, M.N. A sea change for science: #BetterPublishing	†Welch, Z.S. Combined effects of ocean climate and spatiotemporal variability on calcification-related physiology in juvenile California purple urchins
11:45 - 12:00	Hamilton, S.L. Get to work: Updates on Oregon's expanding kelp forest restoration program	Alcantar, C.Y. Competition along the pacific coast: Comparing the physiological responses of mytilus congeners to multiple stressors	Q&A PERIOD	Harvell, C.D. The ocean's menagerie: Spineless superpowers from sponges to sea stars	†Westphal, G.H. Impacts of variable food availability on zooplankton energetics, growth and reproduction

Poster Sessions I & II

Saturday 13:30 - 15:30

Time	Poster Sessions I & II Location: GALLERY & PATIO
13:30 - 14:30	Poster Session I: EVEN-NUMBERED POSTERS
14:30 - 15:30	Poster Session II: ODD-NUMBERED POSTERS

Contributed Talks

† eligible for Best Student Paper Award

Sunday 08:45 - 10:45

Time	Session 30: Kelp Forest Ecology III <i>Chair: Alejandra Mora-Soto</i> Location: SHUTTERS WEST	Session 31: Conservation and Restoration V <i>Chair: Richelle L. Tanner</i> Location: SHUTTERS EAST	Session 32: Fisheries, Reproduction, Dispersal, and Recruitment II <i>Chair: Benn Hanns</i> Location: BRICKSTONES	Session 33: Evolutionary Biology II <i>Chair: David K. Jacobs</i> Location: COURTYARD 1	Session 34: Population Biology and Ecology II <i>Chair: Jade Zounes</i> Location: COURTYARD 2	Session 35: Special Session III: Non-Academic Careers and Research Panel Q&A <i>Chair: Piper Wallingford</i> Location: GALLERY
08:45 - 09:00	Selbitschka, J. Spatial and temporal variation in kelp communities across the Salish Sea	Campbell, P. Gaviota Coast abalone restoration project	Barnes, C.L. [Re]defining stock structure to support groundfish management along the US west coast	Tobias, Z.J.C. Exploring parallelism of gene expression across ecotypes of the threespine stickleback (<i>Gasterosteus aculeatus</i>)	Khen, A. Morphological variability of <i>Egorgia menziesii</i> in California over two centuries characterized through historical and contemporary herbarium specimens	Wallingford, P.D. Exploring Non-Academic Careers & Research
09:00 - 09:15	Weigel, B.L. Impacts of ocean warming across the life cycle of kelp	Crane, N.L. Weaving indigenous knowledge with western science and technology: Co-designing a large Marine Respected Area in the Western Pacific	Haggerty, M.B. A histological investigation of size at maturity for white seabass (<i>Atractoscion nobilis</i>)	Jacobs, D.K. Exploring the historical ecology and evolution of grunion, stickleback, tidewater goby using genomic resequencing in California	Garza, C.D. Integrating autonomous aerial vehicles and machine learning in image-based studies of pinniped populations	PANEL DISCUSSION Q&A: Piper Wallingford (The Nature Conservancy) Mo Wise (Irvine Ranch Water District) Anthony Truong (Merkel & Associates)

09:15 - 09:30	Brock, B.H. The hitchhikers guide to invasion: Native invertebrates as vectors of marine invasion	Tanner, R.L. Cooperative natural resource management in a mixed private-public wetland	Srednick, G. Temporal variation in coral population dynamics and mesoscale hydrodynamic variability mediate inter-island larval connectivity.	Eernisse, D.J. The historical significance of the midlife crisis morph in the southern shield limpet	Farnitano, M.C. Hybridization dynamics in monkeyflowers: Fine-scaled spatial structure and the importance of environmental heterogeneity
09:30 - 09:45	Bauer-Civiello, A.; Abbott, D.; Friewald, J. Before and after a marine heatwave: Fish community changes in Northern and Central California	Ward, M. Monetizing nature? Scaling seagrass restoration to meet climate resilience goals	Hart, C.H. Feasibility of using a random stratified survey design for assessing biomass of dungeness crab in Puget Sound, WA	Hays, D.H. Phylogenomics sheds light on the storied evolution of the elusive order Gadiformes (cods, grenadiers, and kin)	Rottier Johnson, M.K. Northern elephant seal (<i>Mirounga angustirostris</i>) weanling mass and morphometrics at Piedras Blancas
09:45 - 10:00	Hofmann, G.E. Timing is everything: Marine heatwaves and the phenology of reproduction cycles in kelp forests of the Santa Barbara region	Spies, B. From ashes to recovery: Wildfire-responsive management of the endangered tidewater goby	Spindel, N.B. Fish density and size gradients reveal pervasive 'fishing the line' effects across the largest scientifically-designed network of marine protected areas	Medeiros, A.P.M. Adaptive radiations and evolutionary constraints in the marine-derived freshwater fishes of Australia–New Guinea	Gehman, A.L.M. <i>Vibrio pectenica</i> and sea star wasting disease in the field
10:00 - 10:15	Blain, C.O. Kelp carbon pathways in Aotearoa New Zealand: Productivity, stressors, and the role of restoration	Sverdrup, C. Working to recover abalone species to kelp forests in the Santa Monica Bay	Hanns, B.J. Fishing and warming drive contrasting trends in two spiny lobster species on North-eastern New Zealand reefs	Alter, S.E. The evolution of scotopic vision in Pacific rockfishes (genus <i>Sebastes</i>) occupying different depth ranges	Goodman, M.C. Joint estimation of environmental effects and ecosystem dynamics with EcoState and dynamic structural equation models
10:15 - 10:30	Spyksma, A.J.P. Irruption of native sea urchin signals impending region-wide collapse of kelp forests	Taddeo, S. Landscape drivers of taxonomic, phylogenetic, and spectral plant diversity across wetlands of the conterminous United States	Q&A PERIOD	McRory, G.P. Employing a novel imaging machine to catalog large-bodied specimens in biological collections	Q&A PERIOD

10:30	Mora-Soto, A.	Beheshti, K.M.	Q&A PERIOD	Pedraza-Marrón, C.	Q&A PERIOD
-	An overview of	Lessons learned		A few meters	
10:45	the trends and	from 25 years of		away: Large and	
	persistence of	monitoring the		fine-scale patterns	
	kelp in Haida	world's largest		of diversification in	
	Gwaii, BC	artificial reef		the rough limpet	
				along the	
				California's	
				intertidal zone	

Contributed Talks

† eligible for Best Student Paper Award

Sunday 11:00 - 12:30

Time	Session 36: Kelp Forest Ecology IV <i>Chair: Nick Shears</i>	Session 37: Conservation and Restoration VI <i>Chair: Zachary Gold</i>	Session 38: Community Ecology II <i>Chair: Rebecca L. Maher</i>	Session 39: Coral Reef Ecology III <i>Chair: Michelle J. Paddack</i>	Session 40: Physiological Ecology III <i>Chair: Matt Bracken</i>	Session 41: Aquaculture II <i>Chair: Or Ben-Zvi</i>
	Location: SHUTTERS WEST	Location: SHUTTERS EAST	Location: BRICKSTONES	Location: COURTYARD 1	Location: COURTYARD 2	Location: GALLERY
11:00 - 11:15	Lima, L.F.O. Kelp carbon output: Dissolved organic carbon (DOC) release from macrocystis pyrifera in responses to seasonal temperatures and nutrients	Harris, J.L. Developing a comprehensive ocean report card for the U.S. west coast	Briggs, A.A. Unique thermal responses of eelgrass, a pathogen, and an herbivorous disease vector can affect eelgrass system productivity and disease dynamics	Ritson-Williams, R. Gene expression drives coral resilience to thermal stress	Vasquez, M.C. Dueling mussels: Analyzing the osmotic tolerance of competitive mussel congeners	Rangel, R.E. Differential diet impacts on red abalone growth and grazing rates under ocean acidification
11:15 - 11:30	Bauer, J. Extreme marine heatwaves onset kelp forest alternative stable states in Baja California, Mexico	Parsons-Field, A.B. Missing molluscs: Discovery of large numbers of endangered black abalone in the shallow subtidal	Maher, R.L. Eelgrass microbiome dynamics under field and lab heat stress combined with different disease strains	Paddack, M.J. Coral to coral phase shift and reversal on a micronesian atoll	Harris, R.J. Seasonal thermal thresholds of California kelp: Part A - Winter	Ben-Zvi, O. With a grain of salt: The effects of salinity on the red seaweed <i>Asparagopsis taxiformis</i>
11:30 - 11:45	Inch, K.M. Eyes on kelp: Environmental monitoring of Puget Sound bull kelp forests to improve restoration	Johnson, M. Saving the forgotten forests: Palos Verdes kelp forest restoration with The Bay Foundation	Sorte, C.J.B. Field ocean acidification and warming experiment increases community evenness by reducing abundances of dominant species	Fan, T.Y. Coral reef restoration guidelines and case studies in Taiwan	De Miguel, Z. Hypoxia induces neuroplasticity, vascular adaptation, and transcriptomic and proteomic signatures in the speckled sanddab brain	Bignami, S. Closing the life cycle of the native California clam, <i>Tivela stultorum</i> , for commercial aquaculture production.

Time	Session 36: Kelp Forest Ecology IV <i>Chair: Nick Shears</i>	Session 37: Conservation and Restoration VI <i>Chair: Zachary Gold</i>	Session 38: Community Ecology II <i>Chair: Rebecca L. Maher</i>	Session 39: Coral Reef Ecology III <i>Chair: Michelle J. Paddock</i>	Session 40: Physiological Ecology III <i>Chair: Matt Bracken</i>	Session 41: Aquaculture II <i>Chair: Or Ben-Zvi</i>
	Location: SHUTTERS WEST	Location: SHUTTERS EAST	Location: BRICKSTONES	Location: COURTYARD 1	Location: COURTYARD 2	Location: GALLERY
11:45 - 12:00	Shears, N.T. Long-term ecological shifts on temperate reefs in Aotearoa New Zealand: Impacts of long-term warming and extreme climatic events	Hendrickson, C. Splice things up: Restoring bull kelp in Oregon using suspending, submerged lines in urchin barrens	Bedgood, S.A. Ecological recovery following the hurricane-driven reopening of Midnight Pass in Sarasota Bay, Florida	Edmunds, P.J. Resilient coral communities on degraded Caribbean reefs	Bracken, M.E.S. In situ climate manipulations alter intertidal seaweed photophysiology	Ortiz, K. Thermal sensitivity of <i>Gracilaria</i> sp.: Effects on growth, physiology, agar yield, and shelf-life
12:00 - 12:15	Randell, Z. ROV surveys within kelp forests and open-source Machine Learning (ML) algorithms to (1) process survey images and (2) extract data	Smith, D. Enhancing pinto abalone (<i>Haliotis kamtschatkana</i>) survivorship with novel outplanting techniques	Grant, S.N. Transitions in macroalgae assemblages during kelp forest recovery from sea urchin barrens	Wall, C.B. Amino acid isotope analysis identifies symbiont-support of coral nutrition across an environmental gradient	Levell, S.T. Conflicted outcomes: Placentation shapes how postzygotic isolation manifests	Q&A PERIOD
12:15 - 12:30	Stolzenbach, K.L. High resolution remote sensing to map kelp canopy and water quality in San Pedro Bay	Gold, Z. Molecular star gazing: Development and validation of an environmental DNA assay for the sunflower star (<i>Pycnopodia helianthoides</i>) Cancelled due to federal shutdown	Smith, J.G. Sea otter patch utilization and foraging at kelp forest-urchin barren margins: Implications for ecosystem persistence and recovery	La Valle, F.F. Drone thermal imaging and benthic time-series analysis show dynamic spatial and temporal delivery of submarine groundwater discharge on a shallow coral reef	Carson, H.J. Patterns and thermoregulatory impacts of catastrophic molt in male northern elephant seals	Q&A PERIOD

Poster Sessions

Poster Session I

* indicates presenting author, † indicates eligibility for Best Student Paper Award

280 - Effect of Temperature and Food Availability on the Reproductive Output of the Acorn Barnacle: *Chthamalus fissus*

† Rog, K.*; Reyns, N.

University of San Diego

282 - Optimizing Fisheries Regulations for a Proposed Kailua Marine Managed Area Under a Changing Climate

† Pettit, A.^{1*}; Innes-Gold, A.¹; Morris, T.²; Madin, E.¹

1- UH Mānoa 2- Manu 'Iwa O Ka Malanai

284 - Phenotypic effects of diatom density of *Phyllaplysia taylori*

† Somashekar, A.^{1*}; Vaught, F.^{1*}; Wyllie-Echeverria, S.¹; Tanner, R.²

1- Friday Harbor Laboratories 2- Chapman University

286 - Characterizing coral physiological responses to nutrient imbalance using ¹³C stable isotope incubations

Zummo, S.G.^{1*}; Mullenmeister, C.A.¹; Prado-Zapata, M.K.¹; Nelson, C.E.²; Wegley Kelly, L.¹

1- UC San Diego, Scripps Inst. of Oceanography 2- University of Hawai'i at Mānoa

288 - Impacts of Trampling on Sea Anemones (*Anthopleura elegantissima* & *A. sola*) in Southern California Rocky Intertidal Zones

† Dansereau, S.D.*; Smith, J.R.

California State Polytechnic University, Pomona

290 - The Effect of Nutrient Concentration and Phytoplankton Species on Marine Snow Formed with Microplastics

† Mejico, D.*; Pollon, J.; Prairie, J.C.

University of San Diego

292 - Novel Sequencing of Rhodopsin in Deep-Dwelling Rockfishes

† Maves, J.A.^{1*}; Torres, B.T.²; Alter, S.E.²

1- Department of Marine Science, California State University, Monterey Bay 2- Department of Biology and Chemistry, California State University, Monterey Bay

294 - Influence of gear type selectivity on diet composition of nearshore rockfish

Evans, S.A.*; Lee, H.H.; Simenstad, E.T.; Johnston, E.M.; Ruttenberg, B.I.; Wendt, D.E.,

Cal Poly San Luis Obispo

296 - Plant Growth and Local Adaptation Response to Nitrogen Pollution in the Los Angeles Basin

† Medjo-Akono, S.H.M.*; terHorst, C.P.

California State University, Northridge

298 - Using Photographs to Determine the Rate of Scar Healing in Goose-beaked Whales

† Lichtenfeld, K.*; Read, A.J.; Waples, D.M.; Cioffi, W.R.

Duke University

300 - Between a rock and a hard place: Mussel bed depths along the Oregon Coast from 2015 - 2025

Vinton, A.L.*; Menge, B.A.

Oregon State University

302 - Can hyperspectral and microstructural analyses discriminate between two cryptic species of rockfishes?

† Orduna, R.*; Alfaro, M.E.

University of California, Los Angeles

304 - The Effects of Zinc and Copper Exposure on Rhodolith Health and Calcification

† Alvarado, M.*; Penn, S.; Edwards, M.

San Diego State University

306 - New swimming spaghetti worms (Terebellidae, Annelida) from the eastern Pacific Ocean

† Barnes, X.Q.M.*; Rouse, G.W.

UC San Diego - Scripps Institute

308 - Alphabet coding for efficient bioacoustic analysis of humpback whale songs along the California coast

† Ng, I.Q.*; Schroth, M.; Liwanag, H.

California Polytechnic State University, San Luis Obispo

310 - Mapping Barriers to Salmon Migration in a Washington State Watershed

† Zbaraschuk, A.S.*

University of San Diego

312 - Investigating differential gene expression in heat-stressed Galápagos corals

† Saso, E.^{1*}; Dash, A.²; Brandt, M.³; Logan, C.A.²

1- Moss Landing Marine Labs, CSU Monterey Bay 2- CSU Monterey Bay 3- Universidad San Francisco de Quito

314 - Mapping submarine groundwater discharge delivery on coral reefs using drone thermal infrared imagery

† Tesoro-Rarangol, F.C.¹; Rasi, F.^{1*}; Philipps, A.¹; Himes, L.¹; Zummo, S.²; La Valle, F.F.¹

1- Pepperdine University 2- SIO, UC San Diego

316 - Changes in Environmental Memory and Navigational Paths of Pagurus samuelis When Exposed to Sudden Increased Temperatures

† Jose, Y.J.*; Stillman, J.H.

San Francisco State University

318 - Fatty acids reveal trophic relationships of invasive green crabs in the Coos Bay estuary

† Diehl, E.J.^{1*}; Galloway, A.W.E.¹; Schooler, S.²

1- University of Oregon 2- South Slough National Estuarine Research Reserve

320 - Predicting the distribution of cold water corals in the Northeast Atlantic Ocean

† Martinez, C.^{1*}; Poti, M.²; Winship, A.²

1- CSU Monterey Bay 2- National Centers For Coastal Ocean Science

322 - Using UASs to Assess Size-Dependent Juvenile White Shark (*Carcharodon carcharias*) Responses to Environmental Stimuli in the Monterey Bay

Moran, D.^{1*}; Montalto, K.²; Jorgensen, S.³

1- CSU Monterey Bay 2- Moss Landing Marine Labs, CSU Monterey Bay 3- CSU Monterey Bay, Moss Landing Marine Labs

324 - *Watersipora* spp. as a non-native host for intertidal invertebrates diversity

† Gonzalez-Rojas, A.^{*}; Araujo-Leyva, O.R.; Lorda, J.; Beas-Luna, R.

Universidad Autónoma de Baja California

326 - Documenting Marine Biodiversity Along the Pacific Coast Using eDNA

† Villalbaz, F.N.^{*}; Heras, J.

California State University San Bernardino

328 - Predictive habitat suitability modeling for *Nereocystis luetkeana* in San Juan County, Washington

† Bews, E.R.^{*}

University of Washington

330 - Leaf it to the sea hares: How eelgrass shapes growth regulation in *Phyllaplysia taylori*

† Dudley, E.^{1*}; Applebaum, S.²; Tanner, R.L.¹

1- Chapman University 2- University of Southern California

332 - Description of a new, leaf-shaped carnivorous sponge (Porifera: Cladorhizidae) from Northeastern Pacific Ocean

† Sherrill, S.^{1*}; Lundsten, L.²; Kahn, A.S.¹

1- Moss Landing Marine Labs 2- MBARI

334 - Dietary consequences of invasive *Sargassum* on *Pugettia gracilis*

Marcial, G.^{1*}; Dobkowski, K.²

1- University of California, San Diego 2- Everett Community College

336 - Using Cooperative Fisheries Research to Co-design an Observatory for Early Warning of Harmful Algal Blooms off the Oregon Coast

† Wood, T.J.^{*}; George, K.; Kent, A.; Cramer, L.A.; Kavanaugh, M.T.

Oregon State University

338 - Thermal tolerance differences in *Lottia digitalis* and *austrodigitalis* cryptic species complex

† Banerjee, S.M.^{*}; Bay, R.A.; Pasparakis, C.

University of California, Davis

340 - Seascape Genomics: Exploring the Evolutionary Responses of Oregon Rockfishes to Climate-Induced Ocean Changes

† Gordon, L.^{*}; Grorud-Colvert, K.; Barreto, F.

Oregon State University

342 - The influence of seaweed functional groups and traits on associated meiofaunal community structure in the rocky intertidal zone

† Morris, J.H.*; Smith, J.R.

Cal Poly Pomona

344 - Temporal Patterns in Fish Diversity Vary Across Multiple Spatial Scales Within Southern California Estuaries

† Rascón, A.A.*; Boone, X.; Long, J.

San Diego State University

346 - Impacts of Urbanization and Seasonality on Aquatic Nitrogen Sources Using Nitrogen Isotopes of Algae in Monterey County

† Sallee, H.A.*; Ding, Y.*

Santa Catalina School

348 - Lignin Content in Salt-Exposed Loblolly Pines (*Pinus taeda*) as an Explanation of Reduced Wood Density Using the Acetyl Bromide Method

† Myers, L.A.^{1*}; McCullough, D.²; Payne, B.²; Stotts, S.²

1- *California State University, Monterey Bay* 2- *University of Maryland Eastern Shore*

350 - Comparing the performance of statistical vs mechanistic models of range dynamics of shortbelly rockfish in California.

† Ramirez Cruz, L.M.*; Fredston, A.

University of California, Santa Cruz

352 - Effects of Dietary Composition on Physiology and Growth in Two Species of Endangered Abalone

† Wang, E.*

UC Berkeley

354 - Methods comparison using satellite and drone imagery to determine change over time of mangrove cover in Baja California

† Baek, Y.*; Wachira, D.*

Santa Catalina School

356 - New myzostomids (Annelida) associated with black corals

Carner, N.J.^{1*}; Tilic, E.²; Rouse, G.W.¹

1- *UC San Diego* 2- *University of Bonn*

360 - Sea Urchin Morphometrics Reflect Kelp Patch Dynamics in a Recovering Forest

† Hutchinson, D.S.^{1*}; McHugh, T.A.²; Grime, B.C.²

1- *Pitzer College* 2- *The Nature Conservancy*

362 - Comparing a novel instance segmentation model with traditional techniques for quantifying sponge percent cover inside reef balls

† Chen, J.S.^{1*}; Zacherl, D.²

1- *Stanford University* 2- *Cal State Fullerton*

364 - Invertebrate biodiversity in kelp forests revealed by autonomous reef monitoring structures

† Clocksin, L.*; Hua, K.; Crunk, M.; Hultgren, K.M.

Seattle University

366 - Characterizing the microbial and metabolomic role of calcifiers common to coral reef recovery

† Prado-Zapata, M.K.*; Mullenmeister, C.A.; Zummo, S.; Wegley Kelly, L.

University of California, San Diego

368 - Exploring Interannual Variations in Adult Alewife (*Alosa pseudoharengus*) Energy Condition as a Proxy for Changing Environmental and Feeding Conditions in the Gulf of Maine

† Barajas, S.^{1*}; Sherwood, G.D.^{2*}

1- California State University, Monterey Bay 2- Gulf of Maine Research Institute

370 - Evaluating the Efficacy of Passive eDNA Sampling for Biodiversity Monitoring in Yucatán Cenotes

† Barajas Rivera, C.^{1*}; Barber, P.¹; Arroyave Gutiérrez, J.²

1- UC Los Angeles 2- Universidad Nacional Autónoma de México

372 - Investigating Leatherback Sea Turtle Foraging Strategies and Preferences for Scyphozoan Jellyfish in Coastal Ecosystems

Schaefer, E.R.^{1*}; Johnson, S.H.²; Kahn, A.S.²

1- CSU Monterey Bay 2- Moss Landing Marine Laboratories

374 - Improving cell culture conditions for proliferation of *Botryllus schlosseri* epithelial cells

Gardell, A.M.^{1*}; Abinales, I.J.¹; Rinkevich, B.²; Kültz, D.³

1- University of Washington Tacoma 2- Israel Oceanographic and Limnological Research, 3- University of California Davis

376 - Metabolic Responses to Unpredictable Heat Extremes Across the Range of an Estuarine Sea Slug

† Leem, J.M.^{1*}; Aghajani, E.^{2*}; Tanner, R.L.²; Wyllie-Echeverria, S.³

1- Whitman College 2- Chapman University 3- University of Washington

378 - Effects of Fine-Scale Nitrate Stress on Early-Sporophyte Blade Morphology and Recruitment of *Macrocystis pyrifera*

† Jung, L.*; Ruffins, O.; Okamoto, D.O.

University of California, Berkeley

380 - Influences of brittle star beds on mesophotic rocky reef fish communities

Kolda, J.F.*; Carlson, P.M.; Jainese, C.J.; Caselle, J.E.

UC Santa Barbara

382 - Effects of Sediment Grain Size and Shell Length on the Burial Rates of Pismo Clams (*Tivela stultorum*) in the Monterey Bay

† Mallicoat, L.D.*; Brady, J.R.*; Beaudoin, O.; Haupt, A.

CSU Monterey Bay

384 - The striped shore crab in estuaries is loaded with diverse parasites, most of which transmit to bird, fish, & shark/ray predators

† Sypher, S.L.^{1*}; Kuris, A.M.²; Lafferty, K.D.³; Hechinger, R.F.¹

1- University of California, San Diego 2- University of California, Santa Barbara 3- USGS University of California, Santa Barbara

386 - Increasing the Range and Accuracy of a Remote Shark Tag Relay Station

† Bremberg, N.*; Jorgensen, S.J.

California State University, Monterey Bay

388 - Microbial Biofilms Promote Settlement for the Invasive Bryozoan, *Watersipora* sp.

† Stromme, N.L.*; Wall, Z.C.; Adams, N.L.

California Polytechnic State University, San Luis Obispo

390 - Evaluating Plant Growth and Success of a Miyawaki Microforest within an Urban Mediterranean environment

† Witten, C.¹; Page, S.¹; Willette, D.A.²; Taddeo, S.¹

1- *University of San Diego* 2- *Loyola Marymount University*

392 - Lasting effects of bleaching: How prior thermal stress shapes coral physiology and resilience

† Pollard, K.N.¹; Holliman, D.K.¹; Whatarau, S.²; Rongo, T.²; Bay, R.A.¹; Brown, A.L.¹

1- *UC Davis* 2- *Kōrero O Te `Ōrau*

394 - Community-led projects address impact of marine debris in coastal Alaska

Taradash, A.C.*; Eckert, G.L.; Cain, M.R.

Alaska Sea Grant

396 - Mapping Environmental Equity: A GIS-Based Assessment of Green Spaces, Nature, and Urban Temperatures in San Diego County

† Combs, E.*; Taddeo, S.

University of San Diego

398 - Competition between two globally invasive bryozoans

† Raisl, S.G.*; McKim, C.*; Smith, N.*; Scotney-Castle, M.*; Craig, S.

Cal Poly Humboldt

400 - Phylogenetic analysis of Caribbean and Pacific Hydrolithon species

† Lopez, A.R.*; Homewood, Z.G.; Ritson-Williams, R.

Cal State University Northridge

402 - Quantifying the effect of benthic cyanobacteria mats on coral reefs in the Caribbean and South Pacific

† Hirahara, A.H.*; Edmunds, P.J.

California State University, Northridge

404 - Predation on Juvenile Sea Urchins as a Potential Mechanism for Kelp Forest Ecosystem Persistence

† Clifford, A.C.¹; Hamilton, S.²; Kahn, A.²; Haupt, A.¹

1- *California State University Monterey Bay* 2- *Moss Landing Marine Labs*

406 - The ecological role of *Pterygophora californica* during unprecedented kelp forest loss in northern California

† Bower, E.H.¹; Long, J.D.²; Hughes, B.B.¹

1- *Sonoma State University* 2- *San Diego State University*

408 - Physical-Ecological Dynamics Shaping Coral Community Structure in the Back Reef of Moorea's Lagoon

† Cwikiel, S.R.G.^{1*}; Dahl, A.D.²; Stevenson, S.¹; Adam, T.³; Burkepile, D.²

1- Bren School of Environmental Science & Management, University of California, Santa Barbara 2- Department of Ecology, Evolution, and Marine Biology, University of California, Santa Barbara 3- Marine Science Institute, University of California, Santa Barbara

410 - Assessing late-summer growth rates of *Hedophyllum nigripes* across *Macrocystis pyrifera* and *Nereocystis leutkeana* forest types in Sitka, Alaska.

Quist, C.J.^{*}; Yang, H.T.; Kroeker, K.J.

UC Santa Cruz

412 - Testing Physiological and Biocultural Effects of Ocean Warming and Food Quality for Climate-resilient Sea Urchin (*tuʻup*) Harvest

Brownlee, G.R.P.^{1*}; Birch, A.G.¹; Duke, K.²; Salomon, A.K.¹

1- Simon Fraser University 2- Ka:yu:ʻkʻtʻhʻ/ Che:kʻtles7etʻhʻ First Nations

414 - Diving into Temporal Variability in the Kelp Forest Community at Hopkins Marine Station

† Bregoff, H.^{1*}; Lonhart, S.²; Haupt, A.³

1- Moss Landing Marine Labs 2- NOAA MBNMS 3- CSU Monterey Bay

416 - How do riverine construction events affect overall parasite abundance?

† Perron, B.^{1*}; Comisso, G.¹; Goldsmith, J.²; Leslie, K.¹; Ortega, E.³; Whalen, C.J.¹; Kuris, A.M.⁴; Brant, S.⁵; Turner, T.⁵; Vanhove, M.⁶; Wood, C.L.¹

1- University of Washington 2- Neumann University 3- New Mexico State University 4- University of California Santa Barbara 5- University of New Mexico 6- Hasselt University

418 - Interactive Effects of Ocean Acidification and Light Limitation on Eelgrass (*Zostera marina*) Physiology

† Miller, R.L.^{*}; Hovel, K.A.

San Diego State University

420 - Return Of The Kelp: a how-to guide for constructing the Array to Recover Kelp Ecosystem Vegetation (ARKEV)

† Cribbley, R.^{1*}; Getz, P.H.^{2*}; Bugbee, B.M.³; Kim, A.³; Hamilton, S.L.³; Grime, B.⁴; McHugh, T.A.⁴

1- Cal Poly Humboldt 2- Cal State Monterey Bay 3- Moss Landing Marine Laboratories 4- The Nature Conservancy

422 - Behavioral and Physiological Response of the Mediterranean Mussel (*Mytilus galloprovincialis*) to Acute Hypoxia and Food Supply

† McKernan, B.R.^{*}; Miller, L.P.

Coastal and Marine Institute, San Diego State University

424 - Greening the grey: Evaluating the ability of novel coastal armouring installations to buffer abiotic stressors

† Ghannadian, M.^{*}; Pooni, J.^{*}; McIntire, L.; Miller, L.

San Diego State University

426 - Effect of temperature on strobilation rate of Pacific sea nettles (*Chrysaora fuscescens*)

Johnson, S.H.^{1*}; Casas, A.B.^{2*}; Kahn, A.S.¹

1- Moss Landing Marine Laboratories, San José State University 2- Department of Marine Science, California State University, Monterey Bay

428 - Environmental effects on coastal housing via remote sensing

† Kim, M.^{1*}; Luis, K.²; Shirkey, G.¹; Tanner, R.¹

1- Chapman University 2- Jet Propulsion Laboratory, California Institute of Technology

430 - The influence of ocean acidification on red abalone (*Haliotis rufescens*) shell growth and thickness in an integrated multi-trophic aquaculture system

† Cotlear, R.P.^{1*}; Osgood, G.²; Ebner, C.²; Kolander, N.²; Hamilton, S.L.²; Gardner, L.³; Graham, M.²; deVries, M.S.⁴

1- Moss Landing Marine Labs, San Jose State University 2- Moss Landing Marine Labs 3- California Sea Grant, Moss Landing Marine Labs 4- San Jose State University

432 - *Macrocyctis pyrifera* zoospores: Exploring effects of thermal patterns across seasonal changes in Santa Barbara

† Villanueva, A.X.^{*}; Cabral, S.; Hofmann, G.E.

University of California, Santa Barbara

434 - Investigating the Effect of Temperature on the Foraging Rate of a Temperate Grazer, *Centrostephanus coronatus*

† Galego, N.L.^{*}; terHorst, C.P.

California State University Northridge

436 - What the Heck is a WEC? Case Study on the Creation and Evaluation of a Marine Renewable Energy Exhibit at a Public Science Center

† Lank, K.S.^{1*}; Crews, T.²

1- Oregon State University 2- Oregon Sea Grant

438 - Effect of Anthropogenic Noise on Copepod Behavior and Feeding

† Rauch, D.C.^{*}; Prairie, J.C.

University of San Diego

440 - Measuring the physical and chemical defenses of brown algae *Silvetia compressa* in response to enriched nutrients and herbivory stressors across wet and dry seasons

† Engbrecht, K.E.^{*}; Daniels, S.; Bittick, S.J.

Loyola Marymount University

442 - Effects of habitat distribution on ecological change at different spatial scales in a coral reef ecosystem

Rassweiler, A.^{1*}; Dubel, A.K.¹; Miller, S.D.²

1- Florida State University 2- University of California Santa Barbara

444 - Fish Habitat Value of Artificial Structures in the Largest Port Complex in US

Stowell, A.B.^{1*}; Stolzenbach, K.¹; Wood, V.²; Luedy, J.³

1- WSP 2- Port of Los Angeles 3- Port of Long Beach

446 - A case for multi-gear assessments: Detection probabilities of nearshore fish with eDNA and seine nets vary by functional traits

Domke, L.K.¹; Ledger, K.J.¹; Whitney, J.M.^{2*}; Kachel, S.M.³; Larson, W.¹; Eckert, G.L.⁴; Baetscher, D.S.¹

1- NOAA, Auke Bay Laboratories, Alaska Fisheries Science Center 2- University of Alaska Fairbanks and NOAA, Auke Bay Laboratories, Alaska Fisheries Science Center 3- University of Washington, School of Marine and Environmental Affairs 4- University of Alaska Fairbanks

448 - Combining field surveys with local ecological knowledge to pinpoint the southern limit of *Macrocystis pyrifera* in the northeastern Pacific

† Atela, M.^{1*}; Bauer, J.²; Beas-Luna, R.¹; Lorda, J.³; Abadía-Cardoso, A.¹; Malpica-Cruz, L.⁴; Carr, M.⁵

1- Facultad de Ciencias Marinas, Universidad Autónoma de Baja California 2- Marine Biotechnology Department, Centro de Investigación Científica y Educación Superior de Ensenada, Baja California 3- Facultad de Ciencias, Universidad Autónoma de Baja California 4- Instituto de Investigaciones Oceanológicas, Universidad Autónoma de Baja California 5- Ecology & Evolutionary Biology Department, University of California Santa Cruz

450 - Wetland restoration outcomes after 10-years of re-established tidal flow in the San Pablo Bay National Wildlife Refuge

Harman, R.M.^{*}; Spenst, R.O.

Ducks Unlimited

452 - Shifts in Geophysical Drivers of Pismo Clam (*Tivela stultorum*) Population Distributions Across Monterey Bay

† Beaudoin, O.^{1*}; Mallicoat, L.²; Brady, R.²; Takahashi, T.²; Alvarez, K.²; Weiland, E.²; Khan, K.²; Haupt, A.²

1- Moss Landing Marine Labs 2- California State University Monterey Bay

454 - Demography, phenology, and ecology of the recently introduced kelp, *Undaria pinnatifida*, in Dana Point Harbor

† Le, R.^{*}; Smith, J.R.

Cal Poly Pomona

456 - Mechanisms of kelp Dissolved Organic Carbon (DOC) release: the role of temperature, nutrient stoichiometry, and photosynthesis in *Macrocystis pyrifera*

† Wu, B.^{*}; Lima, L.F.

UC San Diego

458 - Successional Dynamics, Not Spatial Clustering, Shape Pitcher Plant Microbial Diversity

† Sutter, G.^{*}; Cuellar-Gempeler, C.^{*}

Cal Poly Humboldt

460 - Urchins Rock? How do benthic substrate type and relief affect purple urchin feeding behaviors and density?

† LaForte, T.F.^{1*}; Gravem, S.A.²; Rough, M.E.³; Schnerle, K.⁴; Rumsey, K.¹; Galloway, A.W.E.⁴

1- Oregon State University, Oregon Kelp Alliance 2- Cal Poly SLO, Oregon State University, Oregon Kelp Alliance 3- Oregon State University, University of Oregon, Oregon Kelp Alliance 4- University of Oregon, Oregon Kelp Alliance

462 - Assessing White Shark Body Condition: An AI Framework for Optimizing 2D Morphometric Analysis with Reinforcement Learning and 3D Keypoint Potential

† Sambold, D.^{1*}; Gupta, I.²; Jorgensen, S.¹

1- Department of Marine Science, California State University Monterey Bay 2- Department of Computer Science, Stanford University, Palo Alto, California

464 - Species and size diversity across anthropogenic and natural habitats in Yaquina Bay

Jacquez, N.^{*}; Boisen, O.; Heppell, S.

Oregon State University

466 - Spatiotemporal biochemistry of a 3.5-year experimental bioreactor and a treatment wetland in Monterey County, California

† Duncan, K.M.^{*}

Moss Landing Marine Laboratories & CSU Monterey Bay

468 - Pre and Postnatal Growth of the Scalloped Hammerhead Shark (*Sphyrna lewini*) in the Panamanian Pacific

† Morales, L.^{*}; O'Dea, A.; Dillon, E.

Smithsonian Tropical Research Institute

470 - Assessing reproductive dynamics in Olympia Oysters using histological and novel non-invasive techniques

† Scott, A.B.^{1*}; Kahn, A.S.¹; Gardner, L.²

1- Moss Landing Marine Laboratories 2- California Sea Grant and Moss Landing Marine Laboratories

472 - Environmental DNA as a Tool for Monitoring Stichaeidae and Pholidae Diversity

† Chau, B.^{*}; Heras, J.

California State University San Bernardino

474 - Reassessing the value of eDNA studies in the absence of well-developed barcode reference libraries

† Lee-Trejo, M.^{*}

UC San Diego

476 - Testing dark tolerance on microscopic stages of the non-native kelp *Undaria pinnatifida* to evaluate dispersal via ballast tanks

† McHaskell, D.A.^{1*}; Smith, J.L.²; Werner, B.T.³; Smith, J.E.¹

1- Scripps Institution of Oceanography-UC San Diego 2- UC Santa Cruz 3- UC San Diego

478 - Salt Creek Study: Macroinvertebrates as Pollution Indicators Upstream and Downstream of Development Activity

† Paider, E.J.^{*}

San Diego State University

480 - The effect of ocean acidification on Mg and Ca ratios of red abalone (*Haliotis rufescens*) shells

† Caballero Garcia, M.^{1*}; Osgood, G.¹; Kolander, N.¹; Ebner, C.A.¹; Graham, M.H.¹; Gardner, L.¹; Hamilton, S.L.¹; deVries, M.S.²

1- Moss Landing Marine Labs 2- San Jose State University

482 - Ecological Consequences of Juvenile White Shark Range Shifts into Monterey Bay: Effects on California Sea Otter Distribution and Abundance

† Pilone, B.^{1*}; Young, C.²; Harris, M.²; Jorgensen, S.³

1- Moss Landing Marine Laboratories 2- California Department of Fish and Wildlife 3- California State University Monterey Bay

484 - Octopus Paralarvae Abundance Study in the Central-South Puget Sound

† Grover, S.^{*}; Gardell, A.

University of Washington- Tacoma

486 - Investigating allospecific effects on abundance and discharge rate of cnidae in corallimorpharian *Corynactis californica*

Zasio, C.^{*}; Edmunds, P.J.

California State University, Northridge

488 - Beyond Growth: Allometry Reveals the Effects of Ocean Warming on the Development of Larval Grunion.

† Lundquist, A.J.^{*}; Cole, T.; Johnson, D.

CSU Long Beach

490 - Modeling the Past and Present Distribution of the Endangered Santa Cruz long-toed salamander (*Ambystoma macrodactylum croceum*)

† Porras-Vargas, A.^{*}; Olson, J.

California State University, Monterey Bay

492 - Patterns in fish distribution, abundance, and size inside vs. outside a military exclusion zone at San Clemente Island.

† Johnson, K.J.^{1*}; Lindholm, J.²; Bretz, C.²; Lindholm, Z.³

1- Moss Landing Marine Labs 2- California State University Monterey Bay 3- Colorado College

494 - Influence of Kelp Detritus at the Temperate Reef-Sand interface on Habitat Utilization of Juvenile Rockfishes

† Elias, N.D.^{*}; Lindholm, J.

California State University Monterey Bay

496 - Evaluating the role of structural complexity in rocky intertidal disturbance regimes

† Rothman, B.^{1*}; Carrington, E.¹; Robles, C.²; Garza, C.¹

1- University of Washington 2- Cal State LA

498 - Impacts of Macroborers on Corals Along a Water Quality Gradient In American Samoa

† Groh, M.O.^{1*}; Smith, J.N.¹; Verstaen, J.¹; Basden, I.G.¹; Barkley, H.C.²

1- Cooperative Institute for Marine and Atmospheric Research 2- NOAA Pacific Islands Fisheries Science Center

500 - Heart rate and valve-gaping response of *Mytilus galloprovincialis* to estuary water quality changes

† Mendez, N.M.^{1*}; Miller, L.P.¹; Klopp, M.J.¹; Giddings, S.N.²; Goodrich, K.A.³; Crooks, J.A.³

1- San Diego State University Coastal and Marine Institute 2- Scripps Institution of Oceanography 3- Tijuana River National Estuarine Research Reserve

502 - Community analysis in seagrass meadows

Grande Batres, A.^{1*}; Boisen, O.²; Heppell, S.²

1- California State University Monterey Bay 2- Oregon State University

504 - Comparing Fish Communities in a Created and Natural Marsh, Three Decades after Marsh Creation

† Camara, M.^{1*}; Rodriguez, C.²; Carpenter, J.¹; Correa, J.²; Garcia, J.²; Kitcher, J.²; Uyeda, K.²; Stowe, T.²; Talley, D.¹

1- *University of San Diego, Department of Environmental and Ocean Sciences, San Diego, CA* 2- *University of California San Diego, Natural Reserve Systems*

506 - Spectral variability from space: how well do satellites monitor intertidal zones?

† Cabrera, K.M.^{1*}; Luis, K.²; Tanner, R.¹; Shirkey, G.¹

1- *Chapman University* 2- *Jet Propulsion Laboratory, California Institute of Technology*

508 - If you build it, will they come? Evaluating the effects of kelp restoration on nearshore fish assemblages

† O'Hara, B.^{1*}; Bugbee, B.M.²; Gómez, J.³; Grime, B.C.⁴; Hohman, R.³; Karm, R.H.¹; McHugh, T.A.⁴; Hamilton, S.L.²; Hughes, B.B.¹

1- *Sonoma State University* 2- *Moss Landing Marine Labs* 3- *Greater Farallones Association and Greater Farallones and Cordell Bank National Marine Sanctuaries* 4- *The Nature Conservancy*

Poster Session II

* indicates presenting author, † indicates eligibility for Best Student Paper Award

279 - Intertidal sand dollar *Dendraster excentricus* larvae are resilient to high temperatures at early development and settlement.

† Mariscal Del Toro, M.^{1*}; Lagmay-Alonzo, A.²; George, S.³; Edsinger, E.⁴

1- *Whitman College* 2- *University of Washington* 3- *Georgia Southern University* 4- *University of Florida*

281 - Does intertidal position influence the capacity for anaerobic metabolism in acorn barnacles?

† Fabre, N.^{1*}; Hardy, K.M.²

1- *Cal Poly-SLO* 2- *Cal Poly - SLO*

283 - Three-dimensional reconstruction of Deep Sea Octopus Neuroanatomy Could Reveal Unique Chemoreceptive Abilities

Mears, T.J.^{*}; Crook, R.J.

San Francisco State University

285 - Booming solutions: The impact of pollution remediation on marine communities in San Diego marinas

† Kolon, G.F.^{*}; McCoy, K.; Vasa, I.; Zoch, G.; Boudrias, M.

University of San Diego

287 - Inferring diversity and population structure of mesophotic fish using environmental DNA (eDNA)

† Marwayana, O.N.^{*}; Barber, P.H.

University of California Los Angeles

289 - Gaps in Environmental Report Card Systems: A Global Assessment of Estuarine Health Indicators

Semmler, R.F.^{*}; Hines, A.H.; Ruiz, G.M.

Smithsonian Environmental Research Center

291 - The Effects of Artificial Light at Night on Rodent Giving Up Densities

† Duenas, N.W.*

California State University Northridge

293 - Underfoot Ecology: Rocky Intertidal Invertebrate Abundance and Diversity in the Context of Human Disturbance

† Hall, H.D.*; Khen, A.; Smith, J.E.

Scripps Institution of Oceanography, UC San Diego

295 - Kelp canopy loss results in benthic algal structure change in Northern California

† Winquist, T.¹; Gaylord, B.A.²; Edwards, M.¹

1- *San Diego State University* 2- *University of California Davis*

297 - Are Limpets Locavores? A Test with Carbon Isotope Ratios

† Smith, I.J.*; Eernisse, D.J.; Sandquist, D.R.

CSU Fullerton

299 - Effects of Interacting Climate Change Stressors on Predation Dynamics in Eelgrass Habitat

† Jorrick, L.C.*; Hovel, K.A.

San Diego State University

301 - Tracking Metals Pollution in Mission Bay with *Ulva australis*

† Ah Sam, M.¹; Reyns, N.²

1- *University of San Diego* 2- *University of San Diego*

303 - The effect of nitrate variation on the uptake rates and physiological responses of *Macrocystis pyrifera* juvenile sporophytes

Meyer, K.¹; Sedarat, M.¹; Harris, R.¹; Ben-Zvi, O.¹; Layton, C.²; Zembsch, N.¹; Smith, J.E.¹

1- *Scripps Institution of Oceanography, University of California San Diego* 2- *Institute for Marine and Antarctic Studies, University of Tasmania*

305 - Foraminifera as an indicator of water quality in coral reefs below developed vs minimally developed watersheds in the US Virgin Islands

† Cisneros, I.*; Morales, S.; Stevens, N.; Gray, S.C.

University of San Diego

307 - Supplementary feeding, but not food type, affects purple urchin (*Strongylocentrotus purpuratus*) growth and reproductive potential

Dail, S.*; Zhang, Z.*

Santa Catalina School

309 - What the Kelp! Historical and Aerial Mapping of Kelp Forests off the Oregon Coast

† Combs, J.M.¹; Moretto, W.²; Heppell, S.²

1- *University of South Florida* 2- *Oregon State University*

311 - Determining the Use of Carbon Concentrating Mechanisms (CCM) in 30 Species of Macroalgae from Point Loma

Stodder, K.L.*; Duncan, K.; Edwards, M.S.

San Diego State University

313 - Geological habitat variability of Pismo clam (*Tivela stultorum*) populations in Monterey Bay

† Kahn, K.L.^{1*}; Weiland, E.C.^{1*}; Mallicoat, L.¹; Beaudoin, O.²; Haupt, A.¹

1- California State University Monterey Bay 2- California State University Monterey Bay, Moss Landing Marine Laboratories

315 - Effect of microplastics in prey items (*Emerita analoga*) on the foraging success of sanderlings (*Calidris alba*)

† Tumbale, N.V.^{*}; Stillman, J.H.

San Francisco State University

317 - Conditioned by Diversity: Measuring Eelgrass (*Zostera marina*) Diversity and Microbial Legacy Effects

† Qian, D.^{1*}; Holliman, D.K.²; Brown, A.L.²

1- UC Davis 2- UC Davis Bodega Marine Laboratory

319 - Evaluating the Impact of a Direct Ocean Capture System's Effluent on Early Development of Pacific Oyster (*Magallana gigas*) Larvae

Wu, C.H.^{1*}; Kim, D.¹; Churches, N.¹; Jacobson, I.¹; Qi, Z.²; Chu, S.²

1- Holdfast Aquaculture 2- Captura Corporation

321 - Exploring the Shifting Tides: Variations in Assemblages of Invertebrates on Intertidal Macrophyte *Hedophyllum Sessile* Along the Oregon Coast

† Aldridge, R.A.^{*}; Davis, M.M.; Menge, B.A.

Oregon State University

323 - Hidden World of Purple Sea Urchin: Using Microscopy to Engage the Public in the Phenomenon of Larval Development and Metamorphosis.

De La Piedra, S.¹; Erwin, J.¹; Gupta, S.¹; Liu, J.¹; Ma, J.¹; Meriwether, A.¹; Millis, R.²; Nutt, L.^{2*}; Semans, S.²; Shahr, E.¹; Yu, K.¹

1- Exploratorium 2- Noyo Center for Marine Science

325 - Spatio-Seasonal Dynamics of Macroalgae in Puerto Morelos Reefs under Varying Vulnerability to Human Impact

Tapia-Aguirre, D.M.^{*}; Pérez-Cervantes, E.; Alvarez-Filip, L.

National Autonomous University of Mexico

327 - Will the Young Survive? Common Bottlenose Dolphin Reproductive Metrics Surrounding the Cres-Lošinj Archipelago to Analyze its Specific Population Abundance and Conservation Needs: 2021 to 2024

† Loo, E.K.^{*}

Blue World Institute / School for Field Studies: Croatia / University of San Diego

329 - Behavioral Responses of the California Two-Spot Octopus to Changes in Color and Sound

† Ramirez, S.I.^{*}; Reyns, N.

University of San Diego

331 - Investigating seasonal variation in Southern sea otter raft size and abundance in Monterey and Elkhorn Slough.

† Corbo, A.C.^{*}; McDonald, B.^{*}

San Jose State University/Moss Landing Marine Laboratories

333 - Are fish shrinking? Changes in fish biology length in the Southwestern vs. Southeastern United States

† Ortega, E.^{1*}; Boyd, D.²; Comisso, G.³; Goldsmith, J.⁴; Leslie, K.³; Perron, B.³; Whalen, C.³; Kuris, A.⁵; Brant, S.⁶; Turner, T.⁶; Vanhove, M.⁷; Wood, C.³

1- New Mexico State University 2- University of South Carolina 3- University of Washington 4- Neumann University 5- University of California, Santa Barbara 6- University of New Mexico Museum of Southwestern Biology 7- Hasselt University

335 - Genetic Insights Reveal Cryptic Diversity in Titanoderma

Homewood, Z.G.^{*}; Lopez, A.R.; Ritson-Williams, R.

Cal State University Northridge

337 - Understanding SoCal Seafood Consumption in the Face of Safety Concerns and Environmental Disasters

† Adams, S.^{*}; Kouyoumdjian, N.; Sisk, E.; Anderson, S.S.

CSU Channel Islands

339 - Determining the effects of altered survey design on relative abundance indices for groundfish

Tucker, H.M.^{1*}; Liljestrand, E.M.²; Hart, A.R.²

1- University of Washington 2- NOAA Northeast Fisheries Science Center

341 - Plenty of (Rock)Fish in the Sea: Genetic Species ID of Baja California Rockfish Larvae

Johnston Gomez, M.M.^{1*}; Campbell, E.²; Abadía-Cardoso, A.³; Jiménez-Rosenberg, S.P.A.⁴; Morales-Pulido, J.M.⁵; Gilbert-Horvath, L.²; Garza, J.C.²

1- California State University, Monterey Bay 2- Southwest Fisheries Science Center, National Marine Fisheries Service 3- Facultad de Ciencias Marinas, Universidad Autónoma de Baja California 4- Instituto Politécnico Nacional – CICIMAR, Laboratorio de Plancton y Ecología Marina 5- CICESE

343 - Benthic Cover Response in the Northern Channel Islands Throughout “The Blob” Heatwave

† Phillips, M.N.^{*}; Dolinar, D.; Smith, J.

Scripps Institution of Oceanography, UC San Diego

345 - Thermoregulatory behavior differences between snails and hermit crabs in Tegula shells

Harsche, A.C.^{*}; Tanner, R.L.

Chapman University

349 - Applications of long-term rocky intertidal monitoring by the multi-agency rocky intertidal network (MARINE)

Smith, J.R.^{1*}; Ambrose, R.F.²; Bell, C.A.³; Burnaford, J.L.⁴; Caselle, J.⁵; Gaddam, R.³; Gilbane, L.⁶; Miner, C.M.³; Parsons-Field, A.⁵; Raimondi, P.T.³; Sutton, S.G.¹; Whitaker, S.G.⁷; MARINE partners,⁸

1- California State Polytechnic University, Pomona 2- University of California, Los Angeles 3- University of California, Santa Cruz 4- California State University, Fullerton 5- University of California, Santa Barbara 6- Bureau of Ocean Energy Management 7- Channel Islands National Park 8- Multi-Agency Rocky Intertidal Network

351 - Adopting a land-sea interface approach to link terrestrial and marine habitats of a large marine vertebrate

Negus, S.R.B.*; Andre, A.; Bible, O.; Rothman, B.; Triviño, T.; Ching, J.; Lam, B.; Garza, C.

University of Washington

353 - The Effect of Intertidal Elevation on the Prevalence of Epibionts on Mollusks and Barnacles

† Busby, T.*; Bergsma, G.S.

California State University, Monterey Bay

355 - Monitoring eelgrass in Channel Islands National Marine Sanctuary

Van Deusen, V.K.^{1*}; Duncan, E.A.²; Freedman, R.M.²; Caldow, C.²

1- *Cardinal Point Captains Inc., NOAA Channel Islands National Marine Sanctuary* 2- *NOAA Channel Islands National Marine Sanctuary*

357 - Diving for Data: Citizen Science and Oregon's Kelp Forests

Townsend, F.*; Freiwald, J.; Bauer-Civiello, A.; Abbott, D.; Hollingshead, D.

Reef Check

359 - Invertebrate Assemblages Associated with Bull Kelp Restoration in the Greater Farallones National Marine Sanctuary, CA, USA.

Velázquez, M.^{1*}; Mayock, L.^{1*}; Vidušić, E.¹; Vargas, J.¹; Gómez, J.¹; Karm, R.²; Contolini, G.¹; Mears, T.¹; Zepp, A.¹; Hughes, B.²; Hohman, R.¹

1- *Greater Farallones Association and Greater Farallones and Cordell Bank National Marine Sanctuaries* 2- *Sonoma State University*

361 - Correlation between nutrient levels and seaweed growth in response to an integrated multi-trophic aquaculture system

Thach, Q.^{1*}; Osgood, G.²; Kolander, N.²; Ebner, C.A.²; Graham, M.H.²; Gardner, L.³; Hamilton, S.L.²; deVries, M.S.⁴

1- *San Jose State University* 2- *Moss Landing Marine Labs* 3- *Moss Landing MarineLabs* 4- *San Jose State University*

363 - Impacts of invasive green crab (*Carcinus maenas*) on Juvenile Pacific Oysters (*Magallana gigas*) across environmental gradients

† Mize, I.H.*; de Rivera, C.E.

Portland State University

365 - Pearls of wisdom from The San Diego Bay Native Oyster Living Shoreline Project

Nichols, K.D.^{1*}; Bowers-Doerning, C.²; Barrett, T.²; Zacherl, D.C.³

1- *California State Coastal Conservancy* 2- *Port of San Diego* 3- *California State University Fullerton*

367 - Testing the impacts of marine heatwave duration and intensity on microscopic life stages of giant kelp

† Malone, Z.A.^{1*}; Weigel, B.L.²

1- *Stanford University* 2- *Stanford University, Oceans Department*

369 - Urchin health as a tool to inform management of kelp ecosystems in Greater Farallones National Marine Sanctuary

† Soltys, A.G.*

NOAA Hollings and University of South Florida

371 - How gross is too gross: comparative predator feeding assays on southern California sacoglossan sea slugs.

† Morris, M.*; Krug, P.J.

Cal State LA

373 - Influences of macroalgal traits on epifaunal community structure in temperate rocky reefs

† Mangino, I.D.*; Miller, R.J.

Marine Science Institute, UC Santa Barbara

375 - Seasonal and depth-dependent changes of single-celled marine plankton and environmental parameters off northern San Diego County

† Martinez Martinez, Y.*; Taniguchi, D.A.A.

California State University San Marcos

377 - Small Fish, Big Stakes: Protecting Tidewater Gobies in Times of Disaster

Bibian, J.E.*; Delgado, Y.; Murillo, A.; Spies, B.

CSU Channel Islands

379 - Marine Protected Areas and Trophic Cascades on Catalina Island, California

† Melstrand, E.N.*; Searcy, S.P.

University of San Diego

381 - Effect of Elevated Copper Concentrations on the Formation and Properties of Marine Snow

† Pollon, J.*; Mejico, D.; Prairie, J.C.

University of San Diego

383 - Investigating dual impacts of boring sponge (*Cliona celata*) and acute thermal stress on eastern oysters (*Crassostrea virginica*)

† George, S.J.*; Osterberg, J.S.; Wong, J.M.

Duke University

385 - Predictors of Bull Kelp after Outplanting Efforts in the Greater Farallones National Marine Sanctuary

Vidušić, E.¹*; Gómez, J.¹; Karm, R.²; Zepp, A.¹; Velázquez, M.¹; Mayock, L.¹; Mears, T.¹; Vargas, J.¹; Contolini, G.¹; Hughes, B.²; Hohman, R.¹

1- Greater Farallones Association and Greater Farallones and Cordell Bank National Marine Sanctuaries 2- Sonoma State University

387 - Environmental drivers shape trait distributions of novel seaweed communities on a tropical reef

Carden, I.C.*; Kim, A.R.*; Medina, B.*; Miller, B.*; Vorlop, M.C.*; Long, A.E.; Hannibal, K.N.; Ford, A.T.; Kane, T.L.; Fong, P.

UC Los Angeles

389 - Raising Reefs: A Comparative Analysis of the Effects of Different Rearing Systems on *Acropora palmata*

Bartley, S.A.¹*; Leto, C.²

1- University of California, Berkeley 2- Mote Marine Laboratory

391 - Gonads through the seasons: a multiyear study on purple sea urchins in the Santa Barbara Channel
Cabral, S.R.*; Arrizon Elizarraras, I.*; McDonald, A.M.; Rodriguez, L.; Villanueva, A.X.; Chamorro, J.D.; Hofmann, G.E.

UC Santa Barbara

393 - Use of Tracking Tags in Identifying Trends and Attributes of Megafaunal Movement in the Northeast Pacific and Implications for Life History

† Tran, T.*; Fredston, A.

University of California, Santa Cruz

395 - Purple sea urchin density and behavior as drivers of patch transition dynamics: implications for kelp forest recovery

Foy, A.P.^{1*}; Smith, J.G.²

1- Monterey Bay Aquarium 2- UC Santa Cruz, Monterey Bay Aquarium

397 - Host and pathogen adaptation drive inter and intra-annual patterns of Seagrass Wasting Disease

Moheed, S.; Stachowicz, J.; Brown, A.*

UC Davis

399 - Exploring Patterns of Sexual Dimorphism in Sympatric Ecotypes of Stickleback

Pruette, M.M.*; Tobias, Z.J.C.; Rennison, D.J.

UC San Diego

401 - Investigating *Macrocystis pyrifera* Response to Antibiotics for Deriving Axenic Cultures

Paeper, R.C.*; Vong, B.; Gracey, A.Y.; Nuzhdin, S.

University of Southern California

403 - Caught in the Casita: Ecological Role of Artificial Shelters for Caribbean Spiny Lobsters in Turks and Caicos

Caceres, M.^{1*}; Bruns, S.²; Zoner, A.³; Hudson, A.⁴; Clarke, R.⁵

1- University of San Diego 2- The School for Field Studies Center for Marine Resource Studies 3- University of Vermont 4- Smith College 5- Rice University

405 - *Pagurus samuelis* shell selection is not sensitive to the pH exposure history of shells.

† Mohan-Black, Z.L.*; Ma, Y.*

Santa Catalina School

407 - The effects of fishing on the seasonal density and size distribution of *Panulirus interruptus* in the Santa Barbara Channel

† Cox, J.S.^{1*}; Miller, R.J.²

1- University of California, Santa Barbara 2- Marine Science Institute, University of California, Santa Barbara

409 - Characterizing the distribution of the Sicklefin Devil Ray (*Mobula tarapacana*) along the U.S. east coast

† Torres, I.^{1*}; Anneliese, R.²; Milles, H.¹; Pate, J.³; Lewison, R.¹

1- San Diego State University 2- San Diego Mesa College 3- Marine Megafauna Foundation

411 - Reduction in eelgrass microbiome enhances herbivore preference among leaves from different populations

† Nguyen, C.M.*; Yoong, N.; Stachowicz, J.

University of California, Davis

413 - Herbaria Pressings as a Potential Proxy for *Pyropia* spp. Abundances in Coastal California from 1875-2024

† Feller, A.V.*; Oritz, K.; Khen, A.; Smith, J.E.

University of California, San Diego

415 - Assessing the transgenerational plasticity of gopher rockfish (*Sebastes carnatus*) in response to simulated upwelling stress

† Jones, D.E.^{1*}; Bernardi, G.²; Carey, Q.C.³; Hamilton, S.L.³; Logan, C.A.⁴

1- *California State University Monterey Bay, Moss Landing Marine Laboratories* 2- *University of California Santa Cruz* 3- *Moss Landing Marine Laboratories* 4- *California State University Monterey Bay*

417 - Incidence of microplastics in juvenile shortbelly rockfish captured by rhinoceros auklets

† SanAhmadi, L.A.^{1*}; Hines, E.¹; Jahncke, J.²; Carpenter, E.¹

1- *Estuary & Ocean Science Center, San Francisco State University* 2- *Point Blue Conservation Science*

419 - Size of sea slugs: Effects of eelgrass width on phenotypic traits of *Phyllaplysia taylori*

† Luu, D.^{1*}; Dudley, E.¹; Tanner, R.¹; Wyllie-Echeverria, S.²

1- *Chapman University* 2- *University of Washington*

421 - Don't be obtuse: *Elysia obtusa* is five cryptic, ghostly species of sea slugs

† Maritato, A.M.*; Lugo, L.M.; Krug, P.J.

CSU Los Angeles

423 - Osmotic Performance of *Mytilus trossulus* compared to *Mytilus galloprovincialis* Under Hyposalinity Stress

Vasquez, M.C.; Washington, H.S.*

Loyola Marymount University

425 - Temperature Variability and Oxygen Depletion: Assessing the Vulnerability of Juvenile Flatfish in a Changing Estuary

† Wadsworth, R.V.*; Hamilton, S.L.

Moss Landing Marine Laboratories, San Jose State University

427 - Local Adaptation and Thermal Tolerance of a Range-Expanding Marine Invertebrate

† Brue, H.*; Ewald, H.*; Jenkins, E.*; Johnson, M.; Hutchinson, K.; White, C.

Cal Poly, SLO

429 - Algae Composition and Recovery in The Rocky Intertidal

† Calbow, R.A.*; Wrinkle, J.; Staton, M.; Haupt, A.

California State University Monterey Bay

431 - Is the abundance of trematode parasites in the family Diplostomatidae correlated with the abundance of their bird definitive hosts?

† Goldsmith, J.^{1*}; Commisso, G.²; Leslie, K.²; Ortega, E.³; Perron, B.²; Whalen, C.²; Kuris, A.⁴; Brant, S.⁵; Turner,

T.⁵; Vanhove, M.⁶; Wood, C.L.²

1- Neumann University 2- University of Washington 3- New Mexico State University 4- University of California, Santa Barbara 5- University of New Mexico Museum of Southwestern Biology 6- Hasselt University

433 - Keep calm and beat on: Physiological responses of *Mytilus galloprovincialis* from San Diego estuaries to hypoxia and low salinity stress

† Klopp, M.J.^{1*}; Crooks, J.A.²; Giddings, S.N.³; Goodrich, K.A.²; Miller, L.P.¹

1- San Diego State University 2- Tijuana River National Estuarine Research Reserve 3- UC San Diego

435 - Nursing of multiple pups in northern elephant seals

Nosbisch, L.^{*}; Springer, O.; Murphy, M.; Davidson, M.; Liwanag, H.E.M.

California Polytechnic State University San Luis Obispo

437 - Contextualizing the microbiome of contemporary and historical *Pisaster ochraceus* in the wild and aquariums

† Cheng, A.^{*}; Roopnarine, P.

San Francisco State University, California Academy of Sciences

439 - Developing a Model Bryozoan System; Effects of Diet and Temperature on Growth in an Invasive Bryozoan, *Watersipora* sp.

† Wall, Z.C.^{1*}; Craig, S.F.²; Adams, N.L.¹

1- Cal Poly San Luis Obispo 2- Cal Poly Humboldt

441 - Exploring the foundations of California's MPA network: a deep dive into the role of habitat in influencing fish community responses to marine protection

† Daley, C.D.^{*}; Hamilton, S.L.; Spindel, N.B.; Wood, M.

Moss Landing Marine Laboratories

443 - Bioenergetic impacts of warming and deoxygenation on reproduction of the dominant nearshore grazer, *Strongylocentrotus purpuratus*

† Vidal, K.M.^{*}; Spindel, N.B.

Moss Landing Marine Laboratories, San Jose State University

445 - Abalone Refugia Across Variable Thermal Regimes

† McCleese, L.R.^{1*}; Bolin, J.A.²; Provost, M.²

1- University of Washington 2- University of California Davis

447 - Predator kairomone ignored by prey unless predator has recently eaten

Ellis, E.^{1*}; Layral, M.^{2*}; Chavez, C.^{3*}; Gowda, R.^{4*}; Carrion, E.^{5*}; Austen, L.^{3*}; Sidun, A.^{6*}; Wright, W.G.^{3*}

1- Cypress College 2- U.C. San Diego 3- Chapman University 4- U.C. Santa Cruz 5- UC San Diego 6- U. Colorado Boulder

449 - Effects of ocean acidification on red abalone (*Haliotis rufescens*) biomechanics in integrated multi-trophic aquaculture systems

† Osgood, G.^{1*}; Ebner, C.¹; Cotlear, R.¹; Hamilton, S.L.¹; Gardner, L.¹; Graham, M.¹; deVries, M.S.²

1- Moss Landing Marine Labs 2- San Jose State University

451 - Abundance and composition of nurdles and other large microplastics in a San Diego coastal lagoon.

† Cole, O.^{*}; Gray, S.

University of San Diego

453 - Reproductive responses to unpredictable heat extremes across the range of an estuarine sea slug

† Aghajani, E.^{1*}; Leem, J.^{2*}; Tanner, R.L.¹; Wyllie-Echeverria, S.²

1- Chapman University 2- University of Washington

455 - Assessing Environmental Stressors on *Zostera marina* in an Urbanized Marsh System in Los Angeles Harbor

† Bittick, S.J.¹; Curtis, C.J.^{2*}

1- Biology Department, Loyola Marymount University 2- Environmental Science, Loyola Marymount University

457 - Evaluating Mobile Measurement Tools for Field-Based Data Collection

Bufferd, T.C.^{1*}; Hirsch, S.E.²; Hoover, S.R.²; Bishop, W.R.²; Aoki, D.M.²; Fowler, K.J.²; Persaud, S.²; Carbajal, N.²; Reilly, J.D.²; Barron, H.W.²; Buttrey, S.²; Kowalski, A.²; Pescatore, J.²; Weber, M.²; Leali, J.²; Perrault, J.R.²

1- California State University Northridge 2- Loggerhead Marinelife Center

459 - Effects of Anthropogenic Stressors on Nearshore Fish Nursery Habitats in Mo'orea

† Jones, C.D.D.^{*}; terHorst, C.; Davis, A.C.D.

CSU Northridge

461 - Developing a course-based undergraduate research experience using photoquadrats to analyze marine diversity and community structure of the rocky intertidal

† Cisneros, C.^{*}; Bergsma, G.S.

CSU Monterey Bay

463 - iNaturalist Observations for Monitoring Marine Species

† Pelletier, S.^{1*}; Provost, M.M.¹; Giakoumis, M.I.²; Wahle, R.A.³; Leslie, H.M.³

1- University of California, Davis 2- Institute of Comparative Genomics at the American Museum of Natural History
3- University of Maine Darling Marine Center

467 - Harbor seal (*Phoca vitulina*) haulout behavior in and near Morro Bay

† Bentsen, L.E.^{*}; Savage, C.; Liwanag, H.E.M.

California Polytechnic State University, SLO

469 - Documenting the behavior of Black Oystercatchers (*Haematopus bachmani*) in the Monterey Peninsula

† Hill, L.G.^{*}; Bergsma G.S.,

CSU Monterey Bay

471 - Environmental variation and its influence on community assembly in marine islands.

† Klovra, A.M.^{*}; Dawson, M.N.

University of California, Merced

473 - Leather star (*Dermasterias imbricata*) predation on purple urchins: prey frequency and size-specific mortality

Chau-Pech, K.T.^{1*}; Smith, J.G.²

1- Monterey Bay Aquarium 2- UC Santa Cruz / Monterey Bay Aquarium

475 - Do Sea Stars Dread Taking Baths as Much as My Dog? How Might Freshwater be Impacting our Pentaradial Friends?

Storey, M.R.*; Jackson, D.G.; Craig, S.F.

Cal Poly Humboldt

477 - Energy dissipation in biological systems is governed by the length and efficiency of dominant metabolic pathways, which set the tradeoff between per-step dissipation and system-level flux.

† Shan, D.*; Rohwer, W.R.

San Diego State University

481 - New sea spiders (Pycnogonida) from deep-sea methane seeps.

† Mitchell, S.A.*; Rouse, G.W.

Scripps Institution of Oceanography

483 - Relationships Between Vegetation Greenness, Temperature, and Income in Santa Clara County

† Hailu, M.*; Taddeo, S.

University of San Diego

485 - Science in the surge: Pioneering SCUBA surveys for endangered black abalone in the shallow subtidal

Seeto, K.D.^{1*}; Jainese, C.J.^{1*}; Parsons-Field, A.B.¹; Honeyman, C.J.¹; Kushner, D.J.²; Fletcher, N.C.³; Miner, C.M.³; Gaddam, R.N.³; Raimondi, P.T.³; Caselle, J.E.¹

1- UC Santa Barbara 2- Retired, Channel Islands National Park 3- UC Santa Cruz

487 - The Genome Assembly of an Omnivorous Fish, *Xiphister atropurpureus*, and the Identification of Chitinase Loci

† Lee, T.*; Heras, J.

California State University San Bernardino

489 - Growing at a snail's pace: Integral projection models of range-expanding whelks indicate demographic drivers of population growth

Goodsell, C.^{1*}; Collings, J.²; Beshai, R.³; Monuki, K.⁴; Diez, J.²; Sorte, C.¹

1- University of California, Irvine 2- University of Oregon 3- University of California, Santa Cruz 4- Bodega Marine Lab, University of California, Davis

491 - Decoupling Oxygen and Glucose Production using Targeted Selection Pressures

† Calugaru, K.*; Rohwer, F.

San Diego State University

493 - Over the last 51 years, variable high intertidal algae zonation tended to rise at a sheltered marine refuge of south Monterey Bay

† Kakadia, K.*; Kitting, C.L.

CSU East Bay

495 - Assessing the distribution of spore dispersal in bull kelp (*Nereocystis luetkeana*)

† Fett, D.*; Hughes, B.B.

Sonoma State University

497 - How flexible is plasticity? Assessing changes in sand dollar larvae when switched from high to low food conditions.

† Stern, T.Y.^{*}; Lee, A.; Pace, D.A.

CSU Long Beach

499 - Peer into the Past: Insights from 70+ Years of the State of the California Current Reports

† Lipsey, B.^{*}; Sevigny, J.; Fredston, A.

UC Santa Cruz

501 - Bringing Kelp Forest Restoration from the Ocean Floor to the Classroom Door.

Chace, J.^{*}; Sullivan, D.E.; Peterson H., ; Swanwick, B.; Bartel, S.

Catalina Island Marine Institute

503 - Lined shore crabs of North American muddy estuaries and rocky shores: Indeed, a single species diverged from Asia ~1MYA

† Heiser, J.P.^{*}; Novoa, A.; Hechinger, R.F.

Scripps Institution of Oceanography, UC San Diego

505 - Activity of wolves in captivity at the California Wolf Center

† Gonzalez, L.A.^{1*}; MacIlsac, S.²

1- University of San Diego 2- California Wolf Center

507 - Tracing Stephanocystis: Exploring Miocene brown algal fossils with an extant morphogenetic lens

Lewis, D.¹; Ruiz, S.¹; Hendy, A.²; Braybrook, S.^{1*}

1- UCLA 2- Natural History Museum of Los Angeles County

509 - Impacts of physical extremes on the reproductive output and dispersal of Stephanocystis osmundacea populations

† Funaro, J.L.^{1*}; Franks, J.J.²

1- California State University Monterey Bay 2- Moss Landing Marine Laboratories, San José State University