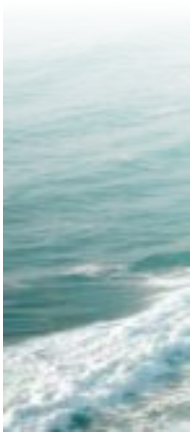
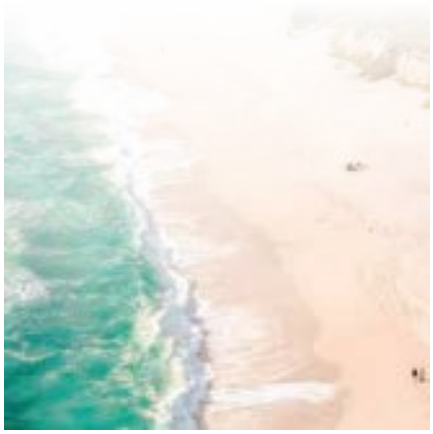
OCEAN PROTECTION COUNCIL

EXECUTIVE DIRECTOR'S REPORT

May 24 – August 14, 2019

Providing an update on outcomes and accomplishments since the previous OPC Meeting.





FUNDING

All funding opportunities are designed to address the priority issue areas identified in OPC's Strategic Plan.

Water Quality, Supply and Infrastructure Improvement Act of 2014 (Proposition 1)
The Proposition 1 grant program's third grant round closed in March 2019 and 11 eligible funding proposals were received. The Review Committee began the evaluation process on May 15, 2019. Top ranked projects will receive site visits in August and OPC staff plans to make project funding recommendations for Council members' consideration and possible approval at the November 2019 OPC meeting.

California Drought, Water, Parks, Climate, Coastal Protection, and Outdoor Access for All Act of 2018 (Proposition 68)
OPC's Proposition 68 Grant Guidelines were approved by the Council at its May 23, 2019 meeting. Disbursement of these funds will begin once OPC's 2020-2025 strategic plan has been finalized and adopted.

General Fund to Address Whale and Sea Turtle Entanglement in Fishing Gear
OPC has approximately $5.3 million of General Fund monies remaining to address whale and sea turtle entanglement; OPC staff is currently developing an investment plan - in close coordination with the California Department of Fish and Wildlife (CDFW), the National Marine Fisheries Service and stakeholders - to ensure strategic and impactful deployment of the remaining funds.

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Additional information will be posted on OPC's Sustainable Fisheries webpage and the General Fund webpage as available.

PROJECTS APPROVED BY EXECUTIVE DIRECTOR'S DELEGATED AUTHORITY

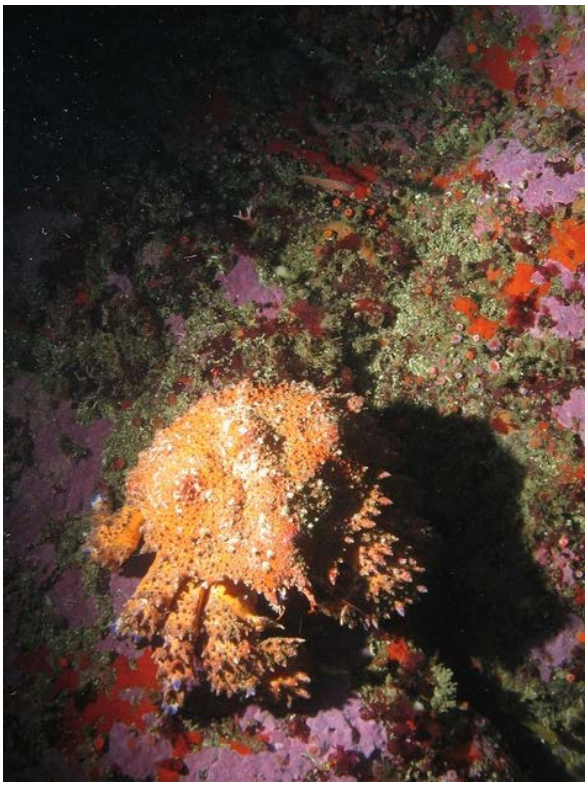
This section provides a summary of projects approved between May and August 2019 through the OPC Executive Director's delegated authority.

Grantee	Project	Amount	Description
California State University Monterey Bay	California Undersea Imagery Archive	$150,000	This grant will maintain the California Undersea Imagery Archive (www.csumb.edu/undersea), a physical and digital archive of undersea video and photo imagery collected statewide. The Archive serves as a research database that provides valuable information to resource managers, the academic community, and the general public about California's marine ecosystems.

LEGISLATION

This section provides a summary of legislation that OPC is tracking related to ocean and coastal ecosystem health and resilience.

AB 552 (Stone) ***Coastal resources: Program for Coastal Resilience, Adaptation, and Access***
This bill would establish the Coastal Adaptation, Access, and Resilience Program to spend 30 percent of revenue, money, and remittances from mineral extraction leases on state tide and submerged lands, including tidelands oil revenue, on activities that will help the state plan and implement actions to address sea-level rise and coastal climate change. It would also create the Coastal Adaptation, Access, and Resilience Fund and would authorize OPC, the Natural Resources Agency, the California Coastal Commission, the Department of Parks and Recreation, and the State Coastal Conservancy to expend these funds.



The California Undersea Imagery Archive makes public some rare glimpses into ocean depths, including this image of a brown box crab, *Lopholithodes foraminatus*, making its way across a rocky reef encrusted with orange sponge and pink crustose coralline algae in the Farrallon Islands.

SB 69 (Wiener) ***Ocean Resiliency Act of 2019***
This bill addresses a range of topics related to ocean and coastal ecosystems, including but not limited to conducting a wetland inventory, vessel speed reduction to minimize whale strikes and reduce air pollution, and addressing environmental conditions for salmonids.

AB 1080 (Gonzalez)/SB 54 (Allen) ***California Circular Economy and Plastic Pollution Reduction Act***
To address the environmental and public health impacts from plastic pollution, this bill would require CalRecycle to: adopt regulations requiring individuals or companies that manufacture single-use packaging or single-use products to source reduce this packaging the maximum extent feasible; ensure that all single-use packaging and priority single-use plastic products in the California market are recyclable or compostable by 2030; and achieve a 75% reduction of waste generated from single-use packaging and priority single-use plastic products by 2030.

SB 576 (Umberg) ***Coastal resources: Climate Ready Program and coastal climate change adaptation, infrastructure, and readiness program.***
This bill would establish the Climate Ready Program to be administered by the State Coastal Conservancy. It would also require OPC to develop and implement a coastal climate change adaptation, infrastructure, and readiness program to recommend best practices and strategies to improve the climate change resiliency of the state's coastal communities, infrastructure, and habitat, and collaborate with certain entities and scientists to facilitate information sharing regarding coastal climate change adaptation, infrastructure, and readiness.

UPDATES BY STRATEGIC PLAN AREA

Science-based Decision Making • Climate Change • Sustainable Fisheries and Marine Ecosystems • Coastal and Ocean Impacts from Land-Based Sources • Existing and Emerging Ocean Uses

SCIENCE-BASED DESCISION MAKING

Science-based decision-making is integrated into all priority program areas; see below for more details.

CLIMATE CHANGE

Ocean Acidification and Hypoxia Science Task Force
In 2017, OPC created the Ocean Acidification and Hypoxia Science Task Force (Task Force), which is convened and managed by the Ocean Science Trust (OST). The Task Force is charged with providing scientific advice to ensure that decision making related to ocean acidification and hypoxia continues to be supported by best available science. OPC has extended the Task Force term through 2021. During this new term, the Task Force will focus on: advancing science in support of OPC priorities related to ocean acidification and hypoxia (OAH); expanding scientific expertise available to OPC; and tracking and maximizing utility of new and existing state-funded ocean acidification and hypoxia science investments. In response to Assembly Bill 2139 ("adopt recommendations for further actions that may be taken to address ocean acidification and hypoxia"), the Task Force will work closely with OPC and OST staff to develop a summary report for the Council and the California State Legislature that highlights current progress and future opportunities to continue to advance ocean science to gain new insights on mitigation and adaptation options for California and other jurisdictions.

Additionally, the OAH Science Task Force will work in collaboration with OPC on the development of an ocean acidification monitoring network gaps analysis guidance document for California. Drawing on the completed monitoring inventory, guidance developed from the 2016 West Coast OAH Panel, and an understanding of decision-making priorities and actions articulated in the State of California Ocean Acidification Action Plan, the Task Force is developing prioritized recommendations to inform future OAH monitoring investments organized by key decisions California natural resource agencies need to make related to managing and mitigating the effects of ocean acidification and hypoxia.

Exploring the Role of California's MPA Network as a Climate Resilience Tool
California is a world leader in developing and managing a science-based and stakeholder-driven network of marine protected areas (MPAs). The State's individual MPAs were created to protect marine ecosystems and designed to be ecologically connected, with the goal of conserving marine life and habitats along the entire coast of California. In recent years, the effects of climate change on marine ecosystems have come more sharply into focus and there is growing scientific interest in understanding the role that MPAs may play in building ecosystem resilience and providing societal benefits in the face of climate change. Assessing California's MPA network holistically through the lens of climate impacts and adaptation may illuminate additional benefits beyond those considered at the time of designation of the MPA network. However, this is an emerging field of study and there is a clear role for scientific guidance to inform this effort.

Rockfish and sea stars abound in a California kelp forest. The State's network of marine protected areas may have potential to provide resilience in the face of a changing climate. Photo copyright: Kyle McBurnie.

OPC will convene a working group of the Ocean Protection Council's Science Advisory Team (OPC SAT) that focuses on developing a strategy for evaluating the performance of California's MPA network in the face of climate change. Specifically, the working group will develop a scientific guidance document that identifies existing science and data gaps and makes recommendations on the best approach to assess and monitor the ability of California's MPA network to provide ecosystem resistance and resilience against climate-driven impacts. The working group will be administered by the California Ocean Science Trust and is currently scheduled to hold its first meeting in the fall of 2019.

Coastal Commission identifies need for additional working group on Sea Level Rise
At their July 12, 2019 Local Government Public Workshop, the California Coastal Commission met with the Coastal Cities Group and League of California Cities to talk about issues of mutual interest, including sea level rise. The group expressed a desire to form a small working group on sea level rise with OPC and Commission members. OPC already convenes the Sea Level Rise Statewide Leadership team, of which the Commission is a member, and OPC staff are committed to continuing to support state-wide science and policy solutions to help address this pressing threat to ocean and coastal resources and access.

Coastal Sediment Management

OPC is continuing to take a leadership role in promoting coastal sediment management by leading meetings of the California Coastal Sediment Management Workgroup. The workgroup is co-chaired by the U.S. Army Corps of Engineers (Army Corps). Workgroup members include leadership and program staff from OPC, Coastal Commission, San Francisco Bay Conservation and Development Commission, State Coastal Conservancy, State Parks, State Lands Commission, U.S. Environmental Protection Agency, Bureau of Ocean Energy Management, and U.S. Geological Survey.

The current focus of the workgroup is implementation of a state Sediment Master Plan (Master Plan) which was completed in early 2018. Development of the Master Plan was funded under a 50/50 cost-share agreement between the state and the Army Corps. The Master Plan is not a single document but rather a body of work comprised of many elements including but not limited to: 15 Coastal Regional Sediment Management Plans, four Programmatic Environmental Impact Reports, and a Biological Impacts Analyses and a companion Resource Protection Guidelines. University of Southern California, Sea Grant staff assisted OPC staff with facilitating a workgroup discussion around Master Plan implementation priorities on May 30, 2019. Another meeting is being planned for September 2019.

Deposition of sediment at the mouth of the Klamath River on the Pacific Ocean In Del Norte County, California, USA. Photo credit, U.S. Army Corps of Engineers.

SUSTAINABLE FISHERIES AND MARINE ECOSYSTEMS

IUCN Green List

The International Union for Conservation of Nature (IUCN) Green List of Protected and Conserved Areas is a recent initiative that aims to promote fair and effective protected areas worldwide. In 2018, OPC launched an effort to add California's unique and globally significant marine protected area (MPA) network to the IUCN Green List. OPC continues to lead that effort in partnership with CDFW.

Through a public call facilitated by OPC and CDFW, IUCN has convened an Expert Assessment Group which will evaluate California's MPA network against Green List criteria. This diverse group includes representatives from a variety of ocean stakeholder communities, and in 2018 the group completed a major adaptation of IUCN's Green List criteria to ensure relevance to the California jurisdiction. The adapted criteria were recently released for a 60-day tribal comment period, which closed on July 30, 2019. On August 5, the criteria were released for a 30-day public comment period, accompanied by comprehensive outreach efforts. At the conclusion of this period, the

Expert Assessment Group will be responsible for incorporating both tribal and public comment into a final set of criteria. It will then begin its evaluation work with an expected completion in 2020. Should the Expert Assessment Group determine that the MPA network meets adapted Green List criteria, OPC anticipates that the network would be formally added to the Green List in late 2020.

Long-term MPA Monitoring
At its May 23, 2019 meeting, the Ocean Protection Council approved $9.5 million to support long-term MPA monitoring projects to inform the first decadal management review of California's MPA network, currently scheduled for December 2022. These projects have now commenced, with researchers beginning field work in early June across a variety of coastal and marine habitats statewide. In mid-August, California Sea Grant will host a project kickoff workshop to facilitate communication and coordination among the principal investigators of these projects.

In a parallel effort, OPC, CDFW, and the Fish and Game Commission are working with Ocean Science Trust to convene two closely related working groups of the OPC Science Advisory Team. One group will provide scientific guidance for the 2022 management review and the second working group, as described in more detail in the climate change section above, will provide scientific guidance related to understanding the roles that MPAs play in providing resilience to climate change. These working groups will provide scientific definitions of selected terms in the Marine Life Protection Act, recommend appropriate analytical approaches for integrating baseline and long-term MPA monitoring data into a science-based evaluation of the MPA network's efficacy at meeting the goals of the Act and recommend appropriate analytical approaches for understanding how to evaluate the performance of the MPA network in the context of a changing climate. The working groups will coordinate closely with researchers conducting long-term MPA monitoring and is currently scheduled to hold its first meeting in the fall of 2019.

Kelp Forest Ecosystem Resilience
Over the last five years, California has experienced widespread and dramatic kelp loss due to a perfect storm of changing ocean conditions: persistent warm waters, unprecedented sea star die-offs, and an explosion in purple sea urchin populations. This phenomenon is occurring statewide but to date has had the most severe ecological and economic impact on California's North Coast. To address this issue, OPC is taking a two-phase approach in which early pilot studies will be used to inform the development of a broader statewide strategy to promote kelp forest ecosystem resilience.

The first pilot project will conduct aerial monitoring of kelp canopy cover between Monterey and the California/Oregon border, providing urgently needed estimates of remaining canopy aerial extents as well as identifying sites where kelp is persisting. The 2019 aerial survey data will allow for a comparison with satellite-based methods to inform the most cost-effective, efficient and robust data source for informing kelp management in future years. The second pilot project is an urchin removal experiment, to be organized by Reef Check California with significant community involvement in in-water restoration efforts. This experiment will help identify optimal methods for urchin removal as well as density objectives for culling efforts. Together, these pilot projects will provide the State with an improved understanding of kelp forest ecosystem dynamics. This will allow OPC and state agency partners, in partnership with communities, to pursue informed kelp restoration options moving forward.

California Dungeness Crab Fishing Gear Working Group

Background, Risk Assessment and Mitigation Program, and New Working Group Members. The California Dungeness Crab Fishing Gear Working Group (Working Group) supports thriving whale and sea turtle populations and a thriving and profitable Dungeness crab fishery by reducing the risk of entanglement in Dungeness crab fishing gear. The Working Group, which was convened by California Department of Fish and Wildlife in partnership with OPC and the National Marine Fisheries Service, includes commercial and recreational Dungeness crab fishermen, environmental organization representatives, members of the disentanglement network, and state and federal agencies. OPC has worked closely with the Working Group to implement priority projects and has successfully leveraged additional funding in partnership with The Nature Conservancy (TNC). OPC's grant agreement with TNC supporting this Working Group concluded on July 31, 2019 and resulted in over two years of support towards making important advances in developing effective and collaborative solutions to reduce the risk of entanglement in fishing gear. The Working Group developed a Risk Assessment and Mitigation Program (RAMP) to assess circumstances where entanglement risk may be elevated and, as needed, identify potential management measures for the CDFW Director's consideration. In April 2019, the Working Group solicited nominations for commercial Dungeness crab permitholders from Morro Bay/Port San Luis, Santa Cruz, Eureka and Trinidad; California Dungeness crab permitholder residing in Oregon or Washington, and a commercial Dungeness crab processor based in California to serve on the Working Group. Nominations were due on May 15, 2019, and new members were recently appointed to the Working Group.

Investments to Reduce the Risk of Entanglement in Fishing Gear. The Working Group's Recommendations Memo from October 2018 includes six recommendations for action by OPC, CDFW, Fish and Game Commission, the Joint Committee on Fisheries and Aquaculture and the Pacific States Marine Fisheries Commission to reduce the risk of whale entanglement. One recommendation suggests OPC direct General Funds (for whale and sea turtle entanglement) for RAMP operations and support, including data gathering, gear innovation, and evaluation. OPC staff is taking these recommendations into strong consideration and has funded a solar logger pilot project in alignment with these recommendations. OPC staff is currently developing an investment plan - in close coordination with CDFW, NMFS and stakeholders - to ensure strategic and impactful deployment of the remaining funds. Additional information will be posted on OPC's Sustainable Fisheries webpage and the General Fund webpage as available.

Dungeness crab are one of the top three fisheries in terms of both landings and value in California. Photo credit: NOAA National Marine Sanctuaries.

Dungeness Crab Task Force
The Dungeness Crab Task Force (DCTF) – which is separate and distinct from the Working Group described above - was created in 2008 to review and evaluate Dungeness crab fishery management measures and provide recommendations to the Joint Committee on Fisheries and Aquaculture, CDFW, and the California Fish and Game Commission. DCTF membership includes seventeen commercial Dungeness crab fishermen across port complexes, as well as seven members representing sport fishing, crab processing, commercial passenger fishing vessel, nongovernmental organization interests. The DCTF also includes non-voting representatives from CDFW and California Sea Grant.

Fish and Game Code Section 8276.4 (as amended by SB 1310 (McGuire, 2018)) identifies OPC as the entity responsible for developing and administering the DCTF. OPC is also responsible for facilitating elections for the DCTF, in coordination with CDFW. Fish and Game Code Section 8276.4 outlines membership and details regarding DCTF representation. OPC and CDFW recently completed the 2019 DCTF commercial fishing elections. Results of the 2019 DCTF commercial fishing elections will be posted on the DCTF webpage and will be shared via the DCTF and CDFW listservs. OPC will also be sharing details regarding the public solicitation process and timeline for the seven non-commercial fishing members appointed by the Chair of the Ocean Protection Council on the DCTF webpage and via the OPC listserv when available.

Recreational Red Abalone Management Strategies Integration to inform the Recreational Red Abalone Fishery Management Plan (FMP)
OPC has partnered with CDFW, California Fish and Game Commission, TNC, and representatives from the recreational red abalone fishing community to support integration of proposed recreational red abalone management strategies to inform the development of the recreational red abalone FMP for the North Coast. In August 2016, OPC funded Ocean Science Trust to develop guidance and recommendations regarding the scientific peer review process for Fishery Management Plans and other management documents with a scientific basis. As part of this grant, Ocean Science Trust facilitated the peer review process for the red abalone fishery, which included two proposed management strategies. The peer review recommendations were finalized in October 2018 and recommended bolstering the scientific rigor of each proposed strategy, as well as identifying synergies between both strategies to increase the chances of successfully tracking changes in the red abalone population in support of scientifically sound management decisions.

In December 2018, the Fish and Game Commission made the following recommendations: 1) address peer review recommendations to integrate the two proposed management strategies; 2) develop a *de minimis* (i.e., managed/restricted access) fishery option; and 3) develop a more comprehensive process and timeline to engage and consult with stakeholders. To accomplish this, a publicly convened group consisting of members of the abalone fishing community, Tribes and tribal communities, scientists, resource managers, and other interested stakeholders will provide feedback and develop recommendations over the next six months to inform the Recreational Red Abalone Fishery Management Plan for the North Coast. Two public meetings have been held thus far on May 22 and July 19, with an upcoming meeting on August 27, 2019. More details are available on OPC's project webpage here, and CDFW's red abalone webpage here.

COASTAL AND OCEAN IMPACTS FROM LAND-BASED SOURCES

Ocean Litter Strategy Implementation

OPC adopted the California Ocean Litter Strategy (Strategy) in 2018, which outlines actions that OPC and interested stakeholders in the state can take to address plastic pollution over the next six years. OPC staff hosted a webinar on June 11, 2019 with interested stakeholders to discuss the progress on Strategy implementation. The webinar featured a presentation on the new California State University System single use plastics procurement policy, and a presentation on the microplastics lab methods validation project being organized by the Southern California Coastal Water Research Project. The next webinar is scheduled for December, and an in-person implementation workshop will be held in the summer of 2020.

Interagency Coordination

Following ongoing coordination, OPC staff provided comments on CalRecycle's draft regulatory text to implement Senate Bill 1335, which requires CalRecycle to create regulations and develop a list of approved food service packaging for use in state facilities and on state property. CalRecycle's formal rulemaking process is anticipated to begin this fall.

OPC staff provided comments on the State Water Resources Control Board's (Water Board) 2019 Ocean Plan review, which outlines and prioritizes projects that the Water Board may initiate over the next few years to improve ocean water quality. Several of the projects identified in the 2019 review overlap with OPC priorities, including projects relating to emerging contaminants, ocean acidification, and microplastics. OPC staff are committed to ongoing collaboration with the Water Board throughout the Ocean Plan review and amendment process.

EXISTING and EMERGING OCEAN USES

Marine Renewable Energy

OPC staff continue to convene, on a bi-monthly basis, a state Marine Renewable Energy Work Group to share updates on the Bureau of Ocean Energy Management leasing process, to coordinate and discuss research needs relative marine renewable energy impacts on the environment, and to coordinate on the state-federal permitting process for offshore wind development. OPC and Humboldt State University are planning a workshop for West Coast researchers currently working on offshore wind related research. This workshop is tentatively scheduled for October 3, 2019 in San Francisco.

Offshore Oil and Gas Development

OPC staff continue to co-convene along with the State Lands Commission, Bureau of Ocean Energy Management, and the Bureau of Safety and Environmental Enforcement the Interagency Decommissioning Working Group (IDWG). The purpose of the working group is to discuss and share information regarding decommissioning methods, environmental impacts, regulatory authorities, policy initiatives, and public outreach so the agencies are prepared and coordinated when oil companies submit requests to decommission their facilities. IDWG member agencies, including the OPC, are co-sponsoring an oil and gas platform decommissioning symposium in conjunction with the Aquarium of the Pacific in Long Beach. The symposium is tentatively scheduled for December 10-11, 2019 in Long Beach.

PERSONNEL NOTES

STAFF

Mark Gold
Executive Director of OPC and the Deputy Secretary for Ocean and Coastal Policy for the California Natural Resources Agency

Mark Gold joined OPC in July of 2019. Mark serves as a key advisor to Governor and the Secretary of Natural Resources and directs policy, scientific research, and critical partnerships to increase protection of coastal and ocean resources in California.

Prior to his appointment, he was the UCLA Associate Vice Chancellor for Environment and Sustainability where he led their Sustainable Los Angeles Grand Challenge effort. Before UCLA, Mark was the first hire at Heal the Bay, where he served as their President for 18 years. During that time, he worked on ocean and coastal legislation and policy, stormwater, watershed management, and marine conservation and coastal restoration issues, projects and programs. Over the course of his career, his research focused on beach water quality and health risks, as well as sustainable water resources management. Mark received his bachelor's and master's in Biology as well as his doctorate in Environmental Science and Engineering, all from UCLA.

Jacqui Vogel
Summer Intern for Climate Change

Jacqui Vogel joined OPC in 2019. Her work at OPC involves supporting the many projects of the climate team, focusing on efforts related to sea level rise and coastal climate resilience. Jacqui is a current undergraduate at Stanford University, pursuing a B.S. degree in Earth Systems with a focus on oceans and climate.

SCIENCE ADVISORY TEAM

Ten new members were added to OPC's Science Advisory Team after Council approval of nominations at the May 23rd meeting:

Dr. Clarissa Anderson
Executive Director, Southern California Coastal Ocean Observing System, Scripps Institution of Oceanography

Main focal areas: Oceanography, harmful algal blooms, coastal monitoring

Dr. Marissa Baskett
Associate Professor, University of California Davis

Main focal areas: Theoretical and evolutionary ecology

Dr. Juliette Finzi Hart
Oceanographer, Director of Outreach, United States Geological Survey

Main focal areas: Climate science and coastal adaptation

Dr. Eunha Hoh
Division Head of Environmental Health, San Diego State University

Main focal areas: Water quality, environmental toxicology

Dr. Anne Kapuscinski
Director, Coastal Science and Policy Institute, Professor, University of California Santa Cruz

Main focal areas: Sustainability science, aquaculture

Dr. Kristy Kroeker
Associate Professor, University of California Santa Cruz

Main focal areas: Global change ecology, coastal sustainability, climate change

Dr. Arielle Levine
Associate Professor, San Diego State University

Main focal areas: Human-environment interactions, natural resource governance, social-ecological systems

Dr. Carrie Pomeroy
Marine Advisor/Specialist, California Sea Grant Extension Program, Scripps Institution of Oceanography, University of California San Diego

Main focal areas: Social science of fisheries and fishing communities

Dr. Laurie Richmond
Associate Professor, Humboldt State University

Main focal areas: Human dimensions of natural resources, fisheries, tribal communities

Dr. James Sanchirico
Professor, University of California Davis

Main focal areas: Resource economics, policy design, implementation, and evaluation for marine conservation