The Ocean Proctection Council Science Advisory Team (OPC-SAT)

providing scientific analysis and advice to the OPC and working to ensure that OPC policy and funding decisions are informed by the best available science

Members

Richard F. Ambrose University of California, Los Angeles

Alexandria B. Boehm Stanford University

Mark Carr University of California, Santa Cruz

Daniel R. Cayan Scripps Institution of Oceanography, University of California, San Diego

Francisco Chavez Monterey Bay Aquarium Research Institute

Kenneth Coale Professor, Moss Landing Marine Laboratories, San Jose State University

Christopher Costello Donald Bren School of Environmental Science, University of California, Santa Barbara

Holly Doremus University of California, Berkeley

Briannon Fraley Tolowa Dee-ni' Nation

Steve Gaines Donald Bren School of Environmental Science, University of California, Santa Barbara

Gary Griggs University of California, Santa Cruz

Madeleine Hall-Arber Massachusetts Institute of Technology

Gretchen Hofmann University of California, Santa Barbara

Sam Johnson Research Geologist, U.S. Geological Survey

Barry Wayne McCovey Jr. Yurok Tribal Fisheries Program

Steven N. Murray California State University Fullerton

Karina J. Nielsen Romberg Tiburon Center for Environmental Studies, San Francisco State University

Jeffrey D. Paduan Naval Postgraduate School

Jerry Schubel Aquarium of the Pacific

John J. Stachowicz University of California, Davis

Chuck Striplen North Coast Regional Water Quality Control Board

William Sydeman Farallon Institute for Advanced Ecosystem Research

Stephen Weisberg Southern California Coastal Water Research Project

Elliott Lee Hazen NOAA Southwest Fisheries Science Center, Environmental Research Division

Liz Whiteman Ocean Science Trust







What is the OPC-SAT

The Ocean Protection Council Science Advisory Team (OPC-SAT) was established in 2008 and collectively provides the expertise needed to assist the OPC in meeting the purposes of the California Ocean Protection Act (COPA).

10 years

ars groups, task forces, and review teams

21 reports and publications

The OPC-SAT is composed of up to 27 esteemed interdisciplinary scientists along the West Coast and beyond, and offers a critical venue to bring state leaders and scientists together around pressing ocean and coastal challenges. The OPC-SAT takes on a range of topics with emphasis on state priorities to address issues impacting coastal and marine ecosystems in California.

The OPC calls upon Ocean Science Trust to coordinate the OPC-SAT in order to ensure the best available science is applied to the Council's policy decisions and recommendations.

The OPC-SAT members engage in four principal work modes:



Individual SAT member engagement -

Delivering the best available science

The OPC-SAT comes together as a whole at least once per year in an in-person workshop. These workshops bring together OPC-SAT members, and decision-makers across the spectrum to share information and updates, discuss priorities, launch new initiatives, or hold technical workshops on specific questions.

To learn more about the work of the OPC-SAT, visit http://www.opc.ca.gov/science-advisory-team/

The OPC-SAT in Action - Supporting OPC's Vision for California's Ocean and Coasts

Highlights from the work of the OPC-SAT between 2012 and 2017

Ocean Acidification and Hypoxia (OAH)

2013-2016 / Expert Panel

Documents produced:

- Executive Summary: "Major Findings and Recommendations"
- Appendices (9)
- Technical Guidance (4)
- Foundational Science (4)

The West Coast OAH Science Panel redefined the OAH issue, recognizing the multifaceted nature of the problem and solutions. In 2016, CA legislature passed **AB 2139 & SB 1363** to implement the Panel's recommendation and engage a new **Science Task Force**.

Rising Seas in California 2017 / Working Group



"Rising Seas in California: an Update on Sea-Level Rise Science"

An update of the "State of California Sea-level Rise guidance document" (initially adopted in 2010 and updated in 2013), to reflect recent advances in ice loss science and projections of sea-level rise. The updated guidance was approved at OPC meeting in March 2018.

Sustainable Fisheries

Climate Change and CA Fisheries

2016 - 2017 / Working Group

"Readying CA fisheries for climate change"

This working group provided scientific guidance to CDFW regarding the potential impacts of climate change on California fisheries and recommendations for building resilience to buffer climatic forces. This document served as a resource to inform the amendment of the Marine Life Management Act (MLMA) Master Plan.



Marine Protected Areas

2017 / Working Group

"A Framework for Informing Permitting Decisions on and Scientific activities in MPAs"

This report presented a quantitative, ecologicallybased decision framework to estimate the impacts of scientific research with the goal of facilitating scientific permitting decisions in California's newly established network of MPAs.



Review of Spiny Lobster FMP 2015 / Review Team

"Scientific review of the reference point thresholds prescribed in the draft Fishery Management Plan for California Spiny Lobster"



Red Abalone Review

2014 / Review Team

"Scientific and Technical Review of the Survey Design and Methods Used by the California Department of Fish and Wildlife to Estimate Red Abalone (Haliotis rufescens) Density"

Impacts from the land on the coasts and ocean

Mitigation of CA coasts

2015-2016 / Working Group

This working group worked with local managers to explore mitigation strategies in response to a range of environmental disasters (e.g. oil spills) and coastal development activities (e.g. desalination plants and once-through cooling) and broader environmental impacts (such as climate change).



Harmful Algal Blooms (HABs)

2016 - 2017 / Working Group

"Framing the Scientific Opportunities on Harmful Algal Blooms and California Fisheries: Scientific Insights, Recommendations and Guidance for California"

Produced in response to the 2015-16 domoic acid event on the West Coast that impacted major CA fisheries. This report highlighted several key characteristics of the 2015 Pseudo-nitzschia bloom as representative of a particularly high-impact HAB event.





Changing Climate

Submerged and Aquatic Vegetations (SAVs)

2016-2018/ Working Group "Emerging Understanding of the role of seagrasses and kelp as an Ocean Acidification (OA) management tool in CA"

Focused on conservation and restoration of SAVs for the purposes of removing carbon from surrounding waters. The report provided technical guidance on the potential application of these emerging findings in contemporary management practices.

