

The Science of Climate Adaption in California

10:00 AM - 5:00PM, Tuesday, May 23, 2017
Elihu M. Harris State Building, Room 1, Oakland, CA

Workshop Participants

OPC-SAT Executive Committee: S. Murray (Co-Chair Elect), F. Chavez (Co-Chair), T. Maloney (Co-Chair), K. Nielsen (Co-Chair Emeritus)

Other OPC-SAT Members: R. Ambrose, A. Boehm, M. Carr^{*1}, D. Cayan*, K. Coale, C. Costello, H. Doremus, J. Field*, B. Fraley*, S. Gaines*, G. Griggs, F. Gulland*, M. Hall-Arber, G. Hofmann*, S. Johnson, B. McCovey*, J. Paduan, J. Schubel*, J. Stachowicz, C. Striplen*, W. Sydeman, S. Weisberg

State Participants: J. Eckerle (Ocean Protection Council), J. Phillips (Ocean Protection Council), D. Aseltine-Neilson (California Department of Fish and Wildlife), B. Ota (California Department of Fish and Wildlife), J. Wall (California Natural Resources Agency), L. Bedsworth (Governor's Office of Planning and Research), J. Anderson (Department of Water Resources)

Additional Workshop Participants: B. Riordan (Climate Readiness Institute), S. Newkirk (The Nature Conservancy), N. Mantua (National Oceanic and Atmospheric Administration), T. Hill (University of California, Davis), R. Kudela (University of California, Santa Cruz)

Ocean Science Trust Staff: H. Carter, L. Kellner, M. Kent, E. Knight, E. Meyer, E. Ramanujam, L. Sievanen, S. Wheeler, E. Whiteman

OPC-SAT workshops are open to the public.

Workshop Summary

The Ocean Protection Council Science Advisory Team (OPC-SAT) has produced a substantial body of work over the past year, supporting the State's science needs on topics ranging from climate change and California fisheries, harmful algal blooms, marine protected areas, and sea-level rise. As California works towards the development of its 4th Climate Change Assessment, the OPC-SAT has a prime opportunity to weave together their existing work to inform how California responds to the changes ahead. This workshop was also an opportunity for the OPC-SAT to continue formalizing the procedures under which they operate, and explore their role and function as a scientific body that informs Ocean Protection Council (OPC) priorities in both the near- and longer-term.

At this workshop, Ocean Science Trust brought the OPC-SAT together with decision-makers to:

- **Scan the Horizon:** Inform OPC's strategic planning and priorities through a horizon scanning exercise, in which the OPC-SAT had a formal opportunity to identify current and emerging science issues and research that they perceive as important for California in the near- and long-term
- **Inform a Statewide Ocean and Coastal Climate Change Adaptation Report:** Discuss the formation of an OPC-SAT Working Group to develop a Statewide Ocean and Coastal Report as part of California's 4th Climate Assessment



^{1*} Member unable to attend.

Part I - Horizon Scanning: Identifying Salient Ocean and Coastal Science in California

The OPC-SAT was asked to identify emerging ocean and coastal science issue areas that California should prioritize in both the near-term and longer-term to inform priorities within OPC's current program areas, as well as longer-term strategic planning. Ocean Science Trust presented results of a pre-workshop survey, in which OPC-SAT members were asked to contribute their top five emerging science questions or challenges, along with a rationale and potential opportunities for each. Contributions ranged from high level issue areas (e.g., climate change impacts), to specific questions (e.g., what are the food web impacts of ocean acidification?). Given the varying levels of specificity contributed in the survey, the discussion that followed focused on how to further refine a formal framework or process for horizon scanning and how the State envisions using the information gathered.

Next steps: The OPC and Ocean Science Trust are working together to further define the function of a horizon scan and how the State intends to use the information gathered. These iterative conversations will help inform development of a more formal horizon scanning process so that the OPC-SAT can continue to bring forth emerging science relevant to California.

Part II - California's 4th Climate Change Assessment: Developing a Statewide Ocean and Coastal "State of the Science" Report

As a component of California's ongoing 4th Climate Change Assessment process, the State has identified the need for regional reports for all areas of California, including the ocean and coast, to inform adaptation planning efforts across multiple sectors (e.g., food provisioning, shoreline change, water quality, etc.). The OPC asked Ocean Science Trust to convene a working group of the OPC-SAT to develop the Statewide Ocean and Coastal Report that:

- synthesizes knowledge of the impacts of climate change across ocean and coastal ecosystems and human communities;
- recommends science-based solutions to inform ecological and social resilience planning; and
- identifies priority knowledge gaps and science needs to advance the State's ongoing adaptation research agenda.

Workshop discussion focused on impacts and potential adaptation opportunities centered around four major themes: food provisioning, shoreline change, water quality, and coastal and marine ecosystem structure and function. Ideas discussed during the workshop will inform the scope of the report.

Next steps: Ocean Science Trust has been participating in meetings with other regional report authors to more fully scope the audience and need, and will be working with the OPC-SAT Executive Committee and other partners to convene a working group to write the Statewide Oceans and Coastal Report as part of California's 4th Climate Assessment through 2018.

