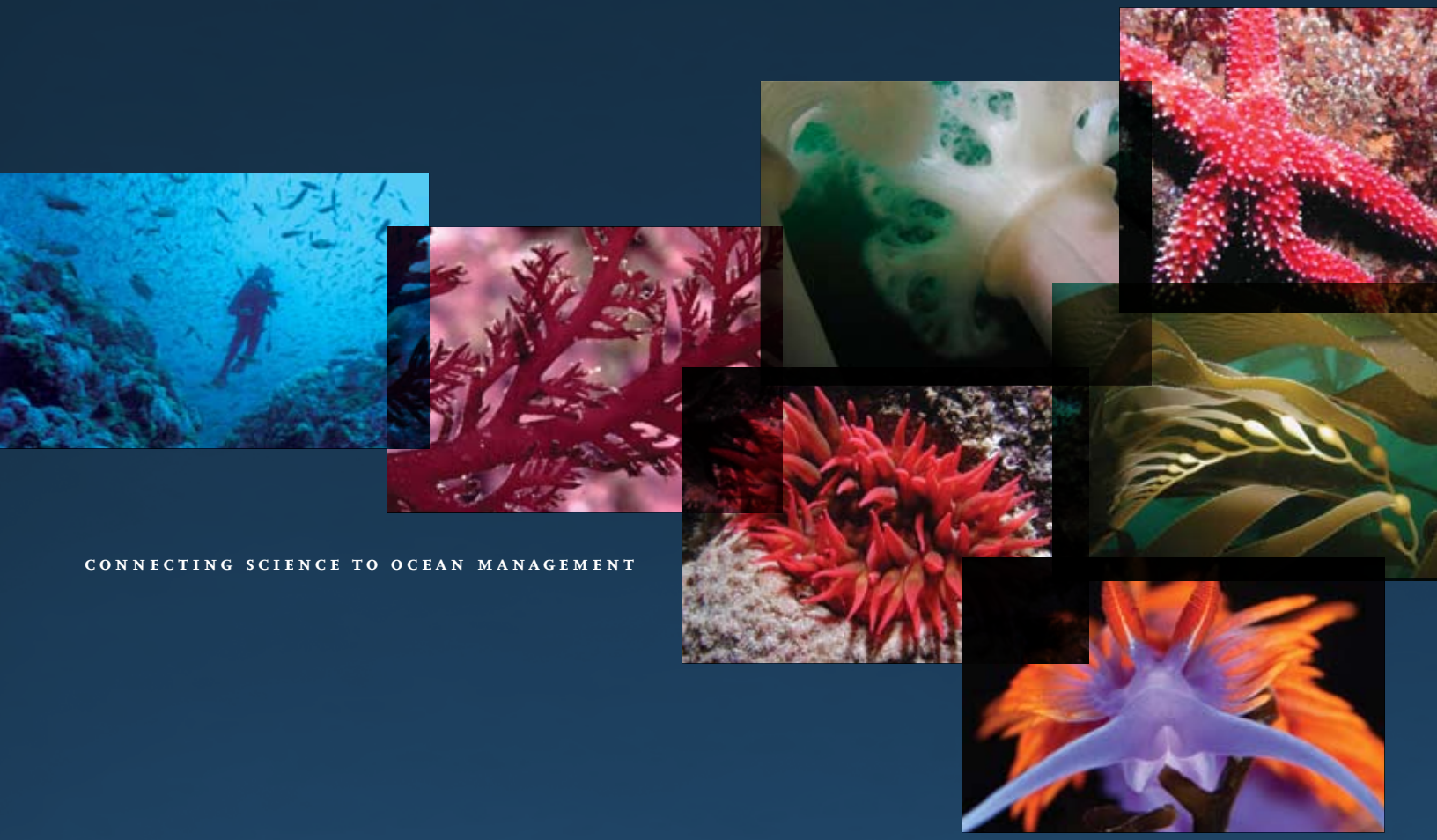
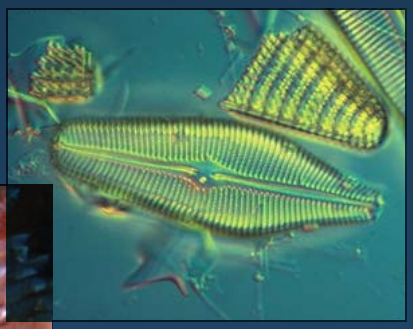
CALIFORNIA
OST
Ocean Science Trust

Annual Report

OCTOBER 1, 2008 THROUGH **SEPTEMBER 30, 2009**



CONNECTING SCIENCE TO OCEAN MANAGEMENT



PHOTOS: Cover: Cordell Bank National Marine Sanctuary (NOAA/Department of Commerce), Plocamium cartilagineum, Red Alga (Lovell & Libby Langstroth, 2005), Anemone (Charlotte Stevenson), Metridium senile (Charlotte Stevenson), Flabellina iodinea (Gary McDonald, 2008), Macrocystis (Charlotte Stevenson), Pisaster (Charlotte Stevenson) **Inside Cover:** Triopha maculata (Gary McDonald, 2007), CINMS Feather duster at Channel Islands National Marine Sanctuary (NOAA/Department of Commerce), Invertebrate (California Academy of Sciences, 2003)

Letter from the Executive Director

Dear Colleagues,

The California Ocean Science Trust (OST) is proud to present our annual report, which summarizes OST's activities and accomplishments from October 2008 through September 2009. It has been a challenging and rewarding year! OST has built a strong team with a clear purpose and direction, and is filling the identified and important need of helping integrate science into ocean and coastal management for California.

Due to the strains of the state budget crisis, California has faced many challenges over the past year. The state has rallied, however, and OST has been able to continue working closely with decision-makers to ensure that ocean and coastal management is supported by the best available science. Under Governor Schwarzenegger's leadership, California is recognized as a national leader on oceans and has fostered creative management solutions to problems facing California's oceans and coasts. OST is proud to support these efforts by working with innovative bodies such as the Ocean Protection Council and other state and federal agencies—as well as through coordinating respected groups such as the Ocean Protection Council Science Advisory Team.

Recently, California and the nation have seen a resurgence of excitement and support for projects that work to link scientific knowledge and policy. The OST is honored to be working in such a stimulating and pioneering environment and is excited that our projects are helping connect decision makers to important scientific research, information, and data. Our coordination of "A Study to Provide Information Related to Oil and Gas Platform Decommissioning Alternatives in California," for example, will supply the California Natural Resources Agency with an authoritative, comprehensive, and unbiased synthesis of information that can be used to inform future state policy discussions on oil and gas platform decommissioning. Similarly, the Marine Protected Areas (MPA) Monitoring Enterprise's innovative approach to efficient and cost-effective monitoring of California's new statewide network of MPAs will deliver high-quality monitoring information to the state—an essential tool for ensuring the long-term adaptive management of these MPAs.

It has been a true honor serving as the OST Executive Director and revitalizing the organization. I was recently appointed by Governor Schwarzenegger as Assistant Secretary for Coastal Matters and Executive Director of the Ocean Protection Council. While I am excited to assume this new role and look forward to collaborating with the OST in my new capacity, I will miss leading the OST. However, I know that even with the transitions of the coming year, OST will build on our track record of delivering useful science-based products and services and ensuring that science is integrated into decision-making in California. Under the new leadership of Ms. Skyli McAfee of University of California, Davis, Bodega Marine Laboratory—who will assume the role of Executive Director on March 1, 2010—and the continued guidance of our exceptional Board of Trustees, OST will continue to play a much needed and appreciated role in translating ocean science to sound management and policy.

Sincerely,

Amber Mace, Ph.D.
Executive Director, California Ocean Science Trust

California's Oceans and Coast

The State of California hosts highly diverse and vibrant marine ecosystems along its 1,100 mile stretch of coastline, which in turn support an estimated $43 billion "ocean economy." [1] California's ocean and coastal resources face increasing and varied threats, however, from sea level rise to ocean acidification to harmful algal blooms. Protecting these resources and designing solutions to address new and existing threats requires research, monitoring data and information, and expert knowledge, as well as the integration of robust scientific information and expertise into innovative approaches for ocean and coastal management. This need to integrate and apply the best available science to policy and management decision-making was called for by two influential commissions on ocean and coastal management — the U.S. Commissions on Ocean Policy and the Pew Oceans Commission. According to the Pew Oceans Commission, "improving how existing (scientific) information and knowledge is used is the first and most important step to improve the scientific foundation for ocean and coastal management." [2] As a leader on ocean issues, California strives to meet the challenge posed by these Commissions and is committed to science-based coastal and ocean decision-making.

1 *National Ocean Economics Program. 2005. California's Ocean Economy.*

2 *Pew Oceans Commission. 2003. America's living oceans: Charting a course for sea change. Available at www.pewtrusts.org/pd/env_pew_oceans_final_report.pdf.*

California Ocean Science Trust

The California Ocean Science Trust (OST) was established by the California Secretary for Natural Resources pursuant to the California Ocean Resources Stewardship Act (CORSA) of 2000. As specified by this Act, the OST is required to report annually on its activities to the legislature and the Chair of the Joint Committee on Fisheries and Aquaculture.

Mission

The California Ocean Science Trust (OST) is a nonprofit 501(c)(3) public benefit corporation established pursuant to the California Ocean Resources Stewardship Act of 2000 to encourage coordinated, multi-agency, multi-institution approaches to translating and applying ocean science to management and policy.

The mission of the OST is to ensure that the best available science is applied to California policies and ocean management to successfully maintain a healthy, resilient, and productive ocean and coast.

"Sound science is at the core of effective ocean and coastal management. Thanks to the work of the OST we are ensuring science-based decision-making to advance California's ocean initiatives well into the future. The organization is supported by an outstanding and diverse Board of Trustees—most of whom I have had the honor of appointing—that includes representation from the state, the University of California and California State University systems, ocean and coastal interest groups and the general public. On behalf of the California Natural Resources Agency I applaud the OST for its unwavering commitment to protecting our ocean and coast."

Mike Chrisman, Secretary for Natural Resources, Chair of the Ocean Protection Council

Organizational Goals and Strategies to Achieve Our Mission

To achieve our mission, and align with the purposes laid out in the enabling legislation, the OST has two overarching organizational goals:

Goal 1. Facilitate collaboration.

Facilitate two-way connections between the arena of science and that of policy and management by establishing and supporting cross-sectoral, multi-partner information systems, dialogue, and exchanges that yield tangible improvements in coastal and ocean management. The OST will serve as a bridge among science, management, and policy organizations, through activities such as its support of the California Ocean Protection Council (OPC) and coordination of science and research among the OPC, state agencies, federal agencies, academic institutions, and non-governmental organizations (NGOs).

Goal 2. Institutionalize integration.

Institutionalize the integration of the best science into California coastal ocean policy and decision-making by building new organizations, programs, and processes, and catalyzing applied research. This goal is in response to the pressing need to develop, disseminate, and apply scientific data and analysis that is designed to inform and improve policy and management.

Through OST leadership and coordination, the OPC-SAT has provided the OPC with more than 200 recommendations for peer reviewers and advisory committee members, which resulted in the selection of 51 peer reviewers and 15 advisory committee members during its first year. These expert reviews help strengthen the projects, proposals and reports and help ensure the results are useful for decision-makers.

Four Key Strategies

In order to apply OST resources most effectively and efficiently, the organization applies four key strategies that enable OST to realize its goals and fulfill its mission:

1. Initiate and Support Programs to Connect Science to Policy and Management:

The OST will support strategic efforts to integrate science into policy and management decision-making. Activities may include coordinating and facilitating meetings and workshops, creating issue-specific task forces, coordinating multiple agency efforts, partnering with other organizations, and sponsoring data collection and mining, analysis, and synthesis. The OST is already working to connect science with policy and management by coordinating the OPC Science Advisory Team (OPC-SAT). It also has the opportunity to serve as the incubator for a multi-sectoral coordinating body, the Marine Protected Areas (MPA) Monitoring Enterprise.

2. Develop Strategic Partnerships:

The OST will develop strategic partnerships (like that with the OPC) and coordinate scientists, government, and NGOs to build on existing expertise and programs, and to collaborate to achieve shared goals and outcomes.

3. Build Network of Experts:

The OST will work to develop an extensive network of the state's rich and diversified scientific experts that can then be brought to bear on pressing policy and management issues. The OST will draw on this extended network for advice and could potentially outsource projects, in whole or in part, to appropriate experts or organizations.

4. Be Agile, Flexible, and Respond Quickly:

The OST will be agile and flexible and thus adept at responding quickly to California's science needs. The OST will identify opportunities to develop, pilot, and/or incubate projects, as with the MPA Monitoring Enterprise. The OST has been asked to incubate other leading initiatives and concepts to respond to emerging challenges.

Consistent with its statutory mandate to bridge the gap between the coastal and ocean research community and coastal and ocean resource managers, the OST has established the following two programs:

1. **Science Integration to the State**
2. **Piloting, Developing, and Incubating New Ventures**



PROGRAM **1.**

SCIENCE INTEGRATION TO THE STATE

OST provides integration of a scientific perspective, data synthesis, and information for decision-making processes of California state agencies and coordinating bodies, such as the **California Ocean Protection Council** (OPC). By coordinating expert advice, and acting as a liaison and bridging institution, the OST improves communication and collaboration among scientists, policymakers, and resource managers, focusing specifically on issues that are management priorities. Currently, no other organization has the same mandate.

Since February 2007, the OST has provided Science Services to the OPC, facilitating the integration of science into OPC projects and decision-making, and refining and expanding mechanisms and partnerships to connect scientists with the OPC. The OPC formally designated the OST Executive Director as its Science Advisor and co-chair of its Science Advisory Team (OPC-SAT). The Executive Director, acting as the Science Advisor oversees the development and provision of scientific services to the OPC. The Science Advisor also provides technical guidance and serves as the OPC's scientific representative in its work throughout California, the West Coast, and nationally.

The OST, through the Executive Director's role as the OPC Science Advisor, performs the following functions:

- **Coordinating Science for the California Ocean Protection Act (COPA). Serves as lead scientific staff to the OPC by coordinating all scientific aspects of the planning and implementation of COPA.**
- **Implementing Objectives of the California Ocean and Coastal Information, Research, and Outreach Strategy. Ensure that projects brought before the OPC meet scientific standards and established OPC funding guidelines.**

The following provides a brief summary of notable accomplishments and describes how OST has helped the OPC and other state agencies to integrate and connect science with decision-making, facilitate collaboration, and effectively institutionalize a scientific perspective throughout agency processes and outcomes.

Strengthening the Scientific Quality of Projects and Proposals for the OPC

The OST coordinates the OPC-SAT to provide technical advice on OPC reports, evaluate the technical merit of scientific projects proposed to the OPC, and recommend outside experts to serve as peer reviewers for OPC proposals and projects. As the OPC continues to expand its programmatic reach and partnerships, the variety and diversity of scientific projects that come before it has increased. Through the peer review process, the OPC-SAT provides the OPC with a tool to ensure that these projects and proposals employ the best and most relevant scientific information, standard approaches and methods of analysis, the most innovative and applicable techniques, and the most cost-effective methods available. Additionally, scientific peer review helps guide the allocation of state funds toward projects that will have the greatest impact on improving coastal and ocean management activities. Therefore, both the peer reviews themselves—as well as the process and protocol for conducting peer reviews—have the potential to greatly strengthen the scientific caliber of projects and proposals by guaranteeing a robust scientific process and assuring the quality of the products.

The OST Science Integration program has produced science to inform decision-makers on the following topics:

- **Risk assessments for six aquatic invasive species vectors (on hold since December 2008 due to the Department of Finance stop-work order on all state bond-funded projects)**
- **Review of report "Developing Wave Energy in Coastal California: Potential Socio-Economic and Environmental Effects"**
- **Oil and Gas Platform Decommissioning Study**
- **Review of three toxicological profile reports from the California Office of Environmental Health and Hazard Assessment on Bisphenol A, Nonylphenol, and Di-(2 Exthylhexyl) Phthalate**

"The OST coordination of the Ocean Protection Council Science Advisory Team has advanced the OPC's mandate of ensuring that science informs policy decisions. The recently-formed team has already been instrumental in improving the quality of the products and projects we support, thereby ensuring the OPC funds science-based projects that are of the highest priority and quality."

Mike Chrisman, Secretary for Natural Resources, Chair of the Ocean Protection Council

During the OPC-SAT's first year of operation, the OST worked with OPC-SAT members to review and revise the peer review protocol for OPC projects, proposals, and reports. The revised protocol, in place since December 2008, has already strengthened peer review quality and applicability, assuring their effectiveness to both guide the timely allocation of OPC funds and strengthen existing research. For OPC projects with a scientific component, all peer reviews are conducted by individuals recommended by the OPC-SAT or from OPC-SAT members themselves. Thus, the OPC-SAT links the OPC to an extensive multidisciplinary network of accomplished and established scientists who can provide the OPC with timely and cost-effective scientific advice. This broad access to recognized expertise deepens the state's scientific capacity and increases the credibility and authority of OPC initiatives, programs, and policy positions.

For these projects, proposals, and reports, the peer review process proved to be an essential tool for guiding the OPC's selection of proposals to fund, strengthening the content of published reports, and informing the composition of an advisory body that has played a key role in the Oil and Gas Platform Decommissioning Study.

Science-Based Advice and Solutions for the State

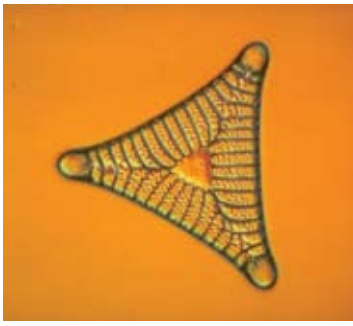
Since 2007, the OST has provided technical advice on numerous OPC agenda items. The OST staff actively participates in weekly OPC staff meetings and provides advice on agenda development. The OST has provided input on such topics as extended producer responsibility, marine debris, and marine spatial planning. Additionally, in the past year, the OST has coordinated a complex peer-reviewed study for the OPC on oil and gas platform decommissioning, and convened two technical workshops to address ongoing questions and critical management problems identified by the OPC.

Oil Platforms: The potential decommissioning of California's 27 oil and gas platforms is a scientifically and politically complex issue. In a renewed attempt to analyze options and provide a sound scientific basis for future policy decisions, the California Natural Resources Agency coordinated with OST to commission a multidisciplinary study to evaluate oil and gas platform decommissioning alternatives. The purpose of the study, which is slated for completion in January 2010, is to assemble and examine scientific information that will help frame future state policy discussions on potential alternative uses and management of decommissioned platforms. The OST has coordinated all aspects of this study, including peer review and release of a request for proposal (RFP), selecting a qualified contractor, and general oversight of the project team. The multidisciplinary project team was selected in April 2009 and represents a range of expertise, including marine ecology, socioeconomics, decision analysis

"Through its leadership of the OPC Science Advisory Team, the OST has not only helped ensure that managers have access to the best and most relevant scientific information available — it has also helped scientists think about issues that are a concern to managers and consider how their research can best be applied to policy."

Rich Ambrose, Ph.D., Co-Chair of the OPC-SAT and Director and Professor, UCLA Environmental Engineering and Science Program

modeling, and marine law and policy. Throughout the process, OST helps to ensure that the study is unbiased and credible, is based on the best available science, incorporates the expertise of a broad range of individuals, and can be effectively translated into management actions. To support these objectives, the OST appointed an expert advisory committee (EAC). This multidisciplinary, 15-member body includes academic scientists, agency representatives, and industry experts and has worked to guarantee that the state receives authoritative and robust advice on this important issue. The EAC has informed the selection of the study team, reviewed the team's products, provided advice on the study process throughout the course of the project, and deepened the expertise that will help shape the project findings.



Contaminants of Emerging Concern Workshop: In collaboration with the OPC, the National Water Research Institute, UC Irvine Urban Water Research Center, and the San Francisco Bay Estuary Institute, and the Southern California Coastal Water Research Project, the OST co-sponsored a workshop entitled "Managing Contaminants of Emerging Concern (CECs) in California: A Workshop to Develop Processes for Prioritizing, Monitoring, and Determining Thresholds of Concern."

In collaboration with workshop partners, the OST helped produce a final report that summarizes the workshop findings, including the need to incorporate CECs into routine aquatic monitoring programs, measurement techniques for monitoring CECs, and thresholds of ecological and human health concern for interpreting CEC monitoring data. The report will be released to California's new Blue Ribbon Task Force on water recycling policy and emerging contaminants and to the OPC.

Collaborative Geospatial Information and Tools for California Coastal and Ocean Managers: The OST worked with the OPC, the National Oceanic and Atmospheric Administration (NOAA) Coastal Services Center, the Center for Ocean Solutions, and The Nature Conservancy to coordinate and facilitate a workshop on geospatial information needs for coastal and ocean managers in California. The two-day workshop focused on understanding state agencies' needs, capacities, and constraints for working with marine geospatial information, as well as learning about cutting-edge geospatial decision support tools, and understanding the strengths and limitations of existing spatial planning and analysis tools.

"The OST's coordination of the Oil and Gas Platform Decommissioning Study is structured to provide the State of California unbiased, credible, and robust information on this important issue. By working closely with the project team and the Expert Advisory Committee, the OST has provided critical guidance and support throughout the course of the study. We look forward to the results."

Brian Baird, Assistant Secretary for Coastal and Ocean Policy, California Natural Resources Agency

The California Sea Grant's Call for Proposals resulted in funding for a study entitled "The Future of the California Chinook Salmon Fishery: The Role of Climate Variation, Habitat Restoration, Hatchery Practices, and Biocomplexity." This study promises to provide critical new scientific information and analysis essential to formulating sound management policy, practices, and decision-making in the salmon fishery.

Identifying Research Priorities for the OPC

In 2008, the OST coordinated and worked with the OPC-SAT and the state to develop and define the OPC's 2009 research priorities. The OPC research priorities were included in California Sea Grant's Call for Proposals released in January 2009. A key result of OST's work with the OPC-SAT is that submitted Sea Grant proposals targeted robust, high quality science that will inform management decisions and provide managers with new science, tools or approaches to address critical issues within their targeted area. The OPC research priority issues identified for 2009 address the following five areas:

- Climate Change
- Land-Sea Interactions and Water Quality
- Harmful Algal Blooms
- Salmon-Ocean Conditions
- Wave and Tidal Energy

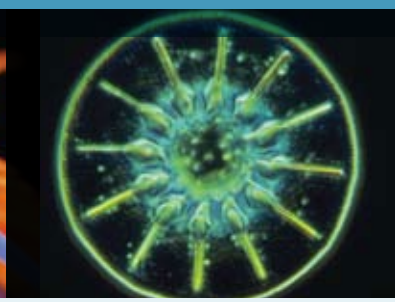
In March 2009, the OST received funding from the California Coastal Marine Initiative Program, of the Resources Legacy Fund Foundation, to supplement and support the integration of science in ocean and coastal resource management in California. The OST has focused on the first phase of the project to establish a science prioritization process that will help the OPC identify and select priority scientific and information needs that will: **1. be most beneficial to the state for coastal and ocean management;** and **2. are aligned with the OPC Strategic Plan and Program Priorities**. This new process will be centered on working with OPC staff, the OPC Steering Committee, key agency representatives, and members of the OPC-SAT to select issues and opportunities where science can play a key supporting role in decision-making. The problems, needs, and opportunities identified will be evaluated against a set of criteria—such as their relevance to the OPC and the state, potential beneficial impact, timeliness, feasibility, and measurable effect—and may range in the size, scale, and scope of work required to inform decision-making. The studies eventually selected will focus on reviewing the existing literature or synthesizing and evaluating current scientific information on a topic, as opposed to conducting original research. Through this process, the OST seeks to balance OST's responses to OPC queries with proactive identification of projects that are the most likely to deliver added scientific value to the state and will have a long-term, significant impact on ocean and coastal resources management.

Identifying Critical Emerging Issues for the OPC

The OST brings the most current and emerging scientific information to the OPC by recommending experts in various fields for OPC presentations and panels on diverse topics, such as climate change and salmon. The OST also works closely with the OPC-SAT to identify emergent issues the OPC may wish to address in the future. To provide such foresight, this year the OST initiated "Spotlight on Science," a new agenda item for OPC meetings where OPC-funded scientists or members of the OPC-SAT will give presentations on their research or on topics of concern to the OPC.

"The OST provided support for an important workshop on contaminants of emerging concern (CECs). Workshop recommendations will lead to a better understanding of CECs' impacts on our marine systems and help to identify existing gaps in our current knowledge. Such analysis is essential for establishing an informed and scientifically-supported regulatory framework in the future. We look forward to continued partnerships on this important issue"

Jonathon Bishop, Chief Deputy Director, State Water Resources Control Board



To guarantee that the OPC remains at the forefront of innovative ocean and coastal research, the OST coordinated the OPC-SAT to identify critical emerging science issues of concern to the OPC and the state, and further recommend potential actions the OPC could take in response to these issues. At its September 2008 meeting, the OPC-SAT identified five important issue areas that may be informed by current and emerging research, and the OST subsequently established three working groups to address them. The five issue areas are:

- Desalination
- Aquaculture
- Disaster Scenario Planning
- Technological Innovations
- Sedimentation, Sand, and Beach Nourishment

The groups are developing written issue summaries that outline the issues and advances in understanding, provide rationale for action, and suggest potential actions that the OPC could take in relation to these issues. The OPC-SAT's work on these issues will be used by OPC staff to inform future meeting themes, projects, and workshops.

Bridging and Improving the Connection between Scientists and Decision-Makers

In 2008 and 2009 the OST coordinated and participated in a number of meetings and workshops to inform the scientific community of OPC activities and support the policy actions of the OPC with robust scientific research.

To help link researchers to managers and other end-users and ensure that the resulting research is applied to state management needs, the OST worked with OPC and Sea Grant-funded researchers to acquire project updates, develop material for the OPC webpage about the projects, and assist with their outreach components.

As the OPC Science Advisor, the OST Executive Director worked to connect state science needs with scientists and coordinating agencies throughout the state.

The OST has participated in the following steering committees and advisory groups to represent the OPC and connect science to policy and management:

- Southern California Coastal Water Research Project, Commission Technical Advisory Group
- Marine Natural Capital Site Scoping Advisory Group
- Harmful Algal Bloom Monitoring and Alert Program Steering Committee
- California Council on Science and Technology Selection Committee for California Science and Technology Fellowships
- Integrated Ecosystem Assessment Action Coordination Team for the West Coast Governors' Agreement on Ocean Health

The OST also made presentations to scientists and academic institutions to communicate OPC's objectives and research priorities:

- International Marine Conservation Congress (IMCC), Washington D.C., May 2009
- Aquarium of the Pacific Long Beach, Aquatic Academy Course, Long Beach, CA, April 2009

Additional outreach initiatives by the OST leadership in 2009 included:

Communicating with Key Partners and Donors. The OST Executive Director met with representatives from state and federal agencies, NGOs, industry, foundations, and other groups to discuss OPC research and monitoring priorities and identify opportunities for increased communication and collaboration.

Communicating with Federal Decision-Makers. The OST Executive Director traveled to Washington, D.C. to meet with agency representatives and Congressional staff in May and June 2009. OST staff helped coordinate and plan the September 17, 2009 OPC meeting, which provided an opportunity for the OPC to discuss and comment on the Presidential Memorandum on a National Policy for the Oceans, our Coasts, and the Great Lakes, and the draft National Policy and Implementation Strategy from President Obama's Interagency Task Force on Ocean Policy. The meeting, which was coordinated to coincide with the White House Interagency Ocean Policy Task Force public meeting, included comments from the Chair of the White House Council on Environmental Quality and the Administrator of the National Oceanic and Atmospheric Administration.

"OST's support, leadership, and insight on the Harmful Algal Bloom Monitoring and Alert Program Steering Committee has fostered a spirit of teamwork among the university and government scientists involved in this effort, enabling us to rapidly share information and real-time data needed for better decision-making in support of our goals of public health protection and our long-term commitment to the health and integrity of California's ocean and coastal systems."

Gregg Langlois, Senior Environmental Scientist, California Department of Health Services

"The MPA Monitoring Enterprise is charting new waters in improving the efficiency of MPA monitoring and its application to adaptive MPA management. NOAA looks forward to exploring with the Monitoring Enterprise the application of these new approaches to supporting the national MPA system and marine spatial planning efforts, and the Obama Administration's broader commitment to improved stewardship of ocean ecosystems and resources."

Jane Lubchenco, Ph.D., Under Secretary of Commerce for Oceans and Atmosphere and NOAA Administrator

PROGRAM **2.**

PILOTING, DEVELOPING, AND INCUBATING NEW VENTURES

This program focuses on developing and institutionalizing new and innovative approaches for improving the link between science and policy and management. As its first project, the OST is incubating the **Marine Protected Areas (MPA) Monitoring Enterprise**, which is leading the development of efficient and cost-effective monitoring of the statewide marine protected areas network being implemented under the Marine Life Protection Act. The MPA Monitoring Enterprise is designed to be small, flexible, and entrepreneurial, and aims to deliver high-quality monitoring information through sound design and by building partnerships.

Key Accomplishments of the MPA Monitoring Enterprise to date:

- **Led partnership developing a new cutting-edge scientific framework for MPA monitoring, which served as the basis for developing a draft MPA Monitoring Plan for the North Central Coast.**
- **Coordinated technical consultation by 18 scientists from around the world, including marine ecologists, fisheries biologists, socio-economists, and resource managers.**
- **Led the development and release of a North Central Coast MPA Baseline Monitoring Program RFP in collaboration with staff of the Ocean Protection Council, Department of Fish and Game, and California Sea Grant.**
- **Completed a User Needs Assessment to guide design and development of a MPA monitoring information management system.**

Establishing an Institution for MPA Science-Based Decision-Making

The OST's first incubation project is the State of California **MPA Monitoring Enterprise**, which has led to the achievement of OST's two goals: 1. institutionalize integration of science into policy and management decision-making, and 2. facilitate collaboration.

The Marine Life Protection Act (MLPA) Master Plan Framework, adopted by the Fish and Game Commission in 2005, describes a strategy for effective monitoring of the state's MPAs that includes developing "the institutions and processes for adaptive management which do not yet exist." These elements include "the institutions and processes by which monitoring data are collected, maintained, and made useful to policy makers over long periods of time."



The MPA Monitoring Enterprise was launched in 2007, when the OPC contracted with the OST to incubate and develop a small, flexible organization with the capacity to:

- Lead development of systematic, cost-effective monitoring of the state's MPAs;
- Manage, synthesize, and distribute monitoring data; and
- Effectively communicate monitoring information in a way that assists the Department of Fish and Game and the Fish and Game Commission in meeting their statutory mandates, broadens understanding of the state's marine ecosystems, and serves the needs of other stakeholders.

"The MPA Monitoring Enterprise is an important strategic partner for the Department of Fish and Game. Development of cost-effective and efficient MPA monitoring that prioritizes the collection of information of greatest use to management and relies on an unbiased, science-based approach is essential."

Deputy Director Sonke Mastrup, Ph.D., California Department of Fish and Game

The incubation plan, which has secured the support of the Department of Fish and Game, stakeholders, and the philanthropic community, is based upon the experience of similar efforts in the United States and abroad, including Australia's Great Barrier Reef Marine Park.

The MPA Monitoring Enterprise is currently leading the development of an efficient, cost-effective approach to monitoring MPAs for the North Central Coast region of California's waters. MPAs are scheduled to be implemented in that region in 2010, so it is important that monitoring begin as soon as possible to enable assessment of the performance of the MPAs against MLPA goals, and to support adaptive management of these sites in the future.

Accordingly, the Monitoring Enterprise worked with the Ocean Protection Council, the Department of Fish and Game, and California Sea Grant to develop and release a North Central Coast MPA Baseline Program RFP. Under the RFP, which was released in July, projects will be implemented to:

Characterize important ecological and socioeconomic aspects of the North Central Coast region at the time of MPA implementation, in order to provide a basis for future assessment of MPA impacts and effectiveness; and

Document key socioeconomic and ecological changes in the North Central Coast region in the two to three years following MPA implementation.

Projects will be selected through a competitive review and evaluation process, and successful projects are scheduled to be awarded funds in December 2009.

Building on the foundation developed under the MPA Baseline Program, the MPA Monitoring Enterprise is also leading development of a North Central Coast MPA Monitoring Plan to implement long-term MPA monitoring and evaluation. To be effective, the monitoring plan must reflect stakeholder interests as well as the best available science, and be designed to ensure collection of the most important and useful monitoring information. The North Central Coast MPA Monitoring Plan will serve as an adaptable template for monitoring plans for other regions and will contribute to assessment of MPAs statewide. Development of this plan includes:

- Workshops with scientists, stakeholders, and resource managers to identify monitoring priorities;
- Convening of scientific working groups to design and recommend innovative and strategic approaches to monitoring over large spatial scales and in the context of a complex and dynamic ecosystem and changing global climate;
- Estimation of costs of MPA monitoring and recommendations for top monitoring priorities;
- Exploration of innovative approaches to carrying out monitoring, such as through partnerships with volunteers, fishermen, and researchers;
- Scientific and public review of a draft version of the monitoring plan;
- Submission of the final monitoring plan to the Fish and Game Commission.

Future Innovations to Connect Science to Management—Over the past year the OST has assessed two other incubation opportunities. OST will continue to assess new projects and ventures to incubate in the future as we lead the MPA Monitoring Enterprise into independence.

OST Future Projects:

To understand the science needs of California's ocean and coast, and the connecting waters of the California Current, the OST needs to collaborate with agencies, organizations, and scientists in the field. Since the OST is a non-governmental organization, it can be flexible, agile, and therefore more opportunistic in the projects it takes on with the goal of selecting opportunities that will have significant long-term impacts.

The OST seeks regular high-level insight, project ideas, opportunities and relationships with key decision-making entities. In this regard, the organization is in a unique strategic position to help identify critical emerging needs and opportunities, and play a key role in building the necessary infrastructure and capacity for informed and effective responses.

In selecting future projects, the OST has five criteria:

- The project must advance and adhere to the OST's three core values of being unbiased, credible, and results-oriented;
- The project must have the potential to make a difference, or enable the OST to fulfill its goals and enact positive changes in the science-based decision-making process;
- Project priorities must be aligned with those of the OPC's guiding documents, such as the OPC Strategic Plan and the 2006 West Coast Governors' Agreement on Ocean Health;
- The impacts of the project should be measurable, whether quantitatively or in relation to its effect on how science is being used or translated into management/policy;
- Projects and activities must be practical, economically feasible, and sustainable within a defined and reasonable timeframe, ideally 6 months to 3 years.

"The OST fills a critical, mandated niche to connect science to ocean and coastal decision-making. The OPC is committed to science-based decision-making, and the work of the OST helps ensure that all OPC decisions are informed by the best science available."

Linda Adams, Secretary for Environmental Protection, Member of the Ocean Protection Council

OST Funding Partners

California Coastal Marine Initiative, Resources Legacy Fund Foundation

Chevron Corporation

The Coastal Impact Assistance Program, U.S. Minerals Management Service

The David and Lucile Packard Foundation

The Ocean Conservancy

The Ocean Protection Council

Sportfishing Conservancy

The United Anglers

FINANCIALS

Statement of Financial Position

ASSETS

Cash	$483,182
Account receivable	1,013,841
Prepaid expenses	15,226
Equipment	21,403
Total Assets	**1,533,653**

LIABILITIES

Accounts payable	79,628
Payroll payable	16,472
Deferred support	50,000
Total Liabilities	**146,100**

NET ASSETS

Unrestricted	$820,486
Temporarily restricted	567,067
Net Assets	**1,387,553**
Total Liabilities and Net Assets	**$1,533,653**

FINANCIALS

Statement of Activities and Changes in Net Assets

REVENUES

Contributions	$1,265,725
Contracts	1,050,703
Other	2,776
Total Revenues	**2,319,203**

EXPENSES

Program Services	
Science Integration	418,415
Monitoring Enterprise	352,146
Total Program Services	**770,561**
Supporting Services	
Management and General	333,842
Fundarising	1,296
Total Supporting Services	**335,138**
Total Expenses	**1,105,699**
Change in Net Assets	1,213,504
Net Assets at the Beginning of the Year	174,049
Net Assets at the End of the Year	**$1,387,553**

STAFF

The OST currently has five full-time staff, led by Amber Mace, Ph.D. who serves simultaneously as the Executive Director of the OST and Science Advisor to the Ocean Protection Council (OPC). The OST recently released an announcement for a Science Integration Program Manager, and is in the process of searching for a qualified applicant to fill this position. The OST will also host a California Sea Grant Fellow from October 2009 through September 2010.

Amber Mace, Ph.D., **Executive Director (through November 30, 2009)**
Skyli McAfee, **Executive Director (effective March 1, 2010)**
Cheri Recchia, Ph.D., **Director of the MPA Monitoring Enterprise**
Liz Whiteman, Ph.D., **Lead Scientist for the MPA Monitoring Enterprise**
Diana Pietri, **Program Associate**
Kellie Geldreich, **Office Manager**

MEETINGS

The OST Board of Trustees has held meetings on the following dates during this report period of October 1, 2008 through September 30, 2009:

- **October 29, 2008**
- **April 23, 2009**
- **July 7, 2009**

All meeting agendas and approved minutes are available on the OST's website (**www.calost.org**).

BOARD OF TRUSTEES

There are currently nine members on the OST Board of Trustees, providing policy level oversight and fiduciary responsibility. The diverse Board membership brings a broad perspective to its governing responsibilities, which is essential to bridge institutional gaps in knowledge, communication, and to build strategic partnerships, whose absence often hampers the development and use of appropriate science in California's complex ocean and coastal management system.

Board membership adheres to the following constituent representation:

- Secretary of the California Natural Resources Agency (1)
- Secretary of the California Environmental Protection Agency (1)
- Director of Finance (1)
- Chancellor of the California State University and President of the University of California (3)
- Ocean and Coastal Interest Groups (2)
- Representatives of the General Public (2)

In 2009, the OST was pleased to welcome many new members to the OST Board of Trustees. The Board of Trustees now consists of the following individuals:

California Natural Resources Agency Representative
Mr. Brian Baird, Assistant Secretary for Ocean and Coastal Policy, California Natural Resources Agency

California Environmental Protection Agency Representative
Mr. Jonathan Bishop, Chief Deputy Director, State Water Resources Control Board

California Department of Finance Representative
Ms. Karen Finn, Program Budget Manager, California Department of Finance

CSU/UC Representatives:
Kenneth Coale, Ph.D, Director, Moss Landing Marine Laboratories, San Jose State University (new member)

David Caron, Ph. D, Distinguished Professor of Law, University of California, Berkeley (new member)

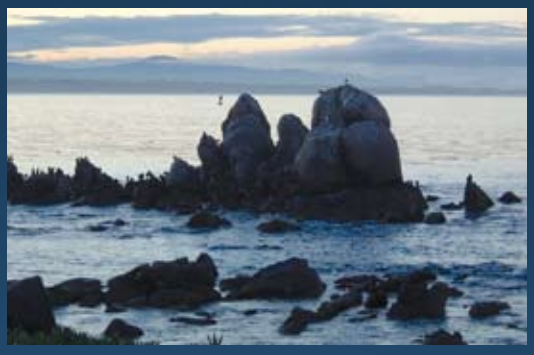
Mr. Fred Keeley, Treasurer-Tax Collector, Santa Cruz County

Coast and Ocean Interest Group Representatives:
Barry Gold, Ph.D, Marine Conservation Initiative Lead, Gordon and Betty Moore Foundation (new member)

General Public Representatives:
Mr. Ken Wiseman, Executive Director, Marine Life Protection Act Initiative (new member)

Steve Weisberg, Ph.D, Executive Director, Southern California Coastal Water Research Project (re-appointed for a second two-year term)

Ms. Margaret Spring, former California Marine Program Director for The Nature Conservancy was also appointed as a new board member. However, in July 2009, Ms. Spring tendered her resignation to the OST Board of Trustees, due to her appointment as Chief of Staff to Jane Lubchenco, Ph.D., Under Secretary of Commerce for Oceans and Atmosphere and NOAA Administrator. OST is grateful for her dedication to our mission and her willingness to serve during her tenure as an OST Trustee, and applauds NOAA's excellent choice.



PHOTOS: **Page 2:** Sonoma Coast (John Meyer) **Page 3:** A Humpback Tail (Tom Kieckhefer, NOAA/Department of Commerce) **Page 4:** Anacapa Island of the Channel Islands National Marine Sanctuary (Robert Schwemmer, NOAA/Department of Commerce) **Page 5:** Jellyfish (Dr. Dwayne Meadows, NOAA/NMFS/OPR) **Page 6:** Kelp Forest (NOAA/Department of Commerce), Leather Star (Charlotte Stevenson), Macrocystis (Charlotte Stevenson) **Page 7:** Anemone (Charlotte Stevenson) **Page 8:** Diatom (California Academy of Sciences, 2003) **Page 9:** Pisaster (Charlotte Stevenson), Monterey Bay (Charlotte Stevenson) **Page 10:** Channel Islands National Marine Sanctuary (NOAA/Department of Commerce), Flabellina iodinea (Gary McDonald, 2009), Invertebrate (California Academy of Sciences, 2003) **Page 13:** Channel Islands National Marine Sanctuary (Shane Anderson, NOAA/Department of Commerce), Leather Star (Charlotte Stevenson), Jellyfish (Dr. Dwayne Meadows, NOAA/NMFS/OPR) **Page 14:** Macrocystis (Charlotte Stevenson), Leaping Coho Endangered Salmon (Reuven Walder/Marine Photobank), Cordell Bank National Marine Sanctuary (NOAA/Department of Commerce), Channel Islands National Marine Sanctuary (Laura Francis, NOAA/Department of Commerce), Anacapa Island of the Channel Islands National Marine Sanctuary (Robert Schwemmer, NOAA/Department of Commerce) **Page 16:** Jellyfish (Greg McFall, Gray's Reef NMS, NOS, NOAA) **Page 19:** Sonoma Coast (John Meyer) **Inside Back Cover:** Plocamium cartilagineum, Red Alga (Lovell & Libby Langstroth, 2005), Monterey Bay (Charlotte Stevenson)

CALIFORNIA OST Ocean Science Trust

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