



# Ocean Studies Institute

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## Annual Report 2017-2018

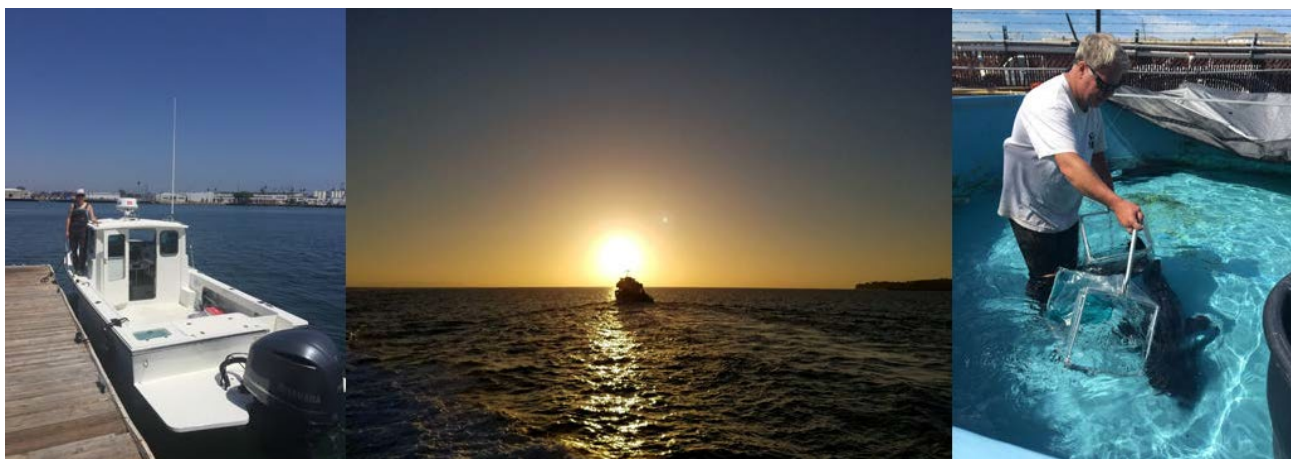
## Mission

The **Ocean Studies Institute** is a consortium of *nine* California State Universities who decided to pool their resources to explore the ocean and coastal regions more effectively. OSI currently consists of California State University Dominguez Hills, Fullerton, Long Beach, Los Angeles, Northridge, Pomona, San Bernardino, San Marcos, and Channel Islands. OSI became a founding member of larger consortium of the **Southern California Marine Institute (SCMI)** in 1994.

The mission of the Southern California Marine Institute is to foster marine research and education, focusing on urban impacts of the greater Los Angeles region on the coastal ocean. We seek to improve scientific understanding and the development of solutions that will enable coastal waters and watersheds to thrive, adapt and become resilient to ongoing environmental stressors.

## Introduction

The Southern California Marine Institute (SCMI) has seen many improvements and accomplishments this year. The year started strong with our highest number of volunteer interns assisting SCMI staff with a wide range of projects from water quality to animal husbandry. SCMI's interns ranged from recent university graduates looking to gain valuable work experience to high school students researching degree options. This year again saw a successful CSU Marine Biology Semester on Catalina Island with 6 CSU faculty participating and 17 students attending. SCMI welcomed our new Facility and Seawater Coordinator Bill Fike, and he has already made improvements to our seawater systems and has worked hard with our Aquarists Mark Loos and Ben Grime to design and build a second abalone lab for The Bay Foundation. SCMI has also welcomed new CSUN Faculty Dr. Kerry Nickols and her brand-new Parker docked and maintained at SCMI. The R/V Yellowfin was repowered to Tier 4 engines this summer and is running the most fuel efficient and cleanest engines in the research fleet. SCMI assisted with some exciting research this year with a variety of new projects including CSUN's Dr. Larry Allen's Giant Sea Bass Study.



# What's New?

## AltaSea SCMI Open House



AltaSea's Open House featuring SCMI was held on April 21, 2018 with great success. Over 16 of our 23 member institutions were present displaying research posters, scientific equipment, and projects to the public. SCMI Board President Dr. Chris Lowe gave an exciting and informative presentation on Robots and Sharks about his research at CSULB's Shark Lab. Over 200 public guests attended the event and met many of SCMI's faculty and students. Event highlights were CSUN's Dr. Larry Allen's saltwater tank show casing local marine organisms, and the 20 student poster displays covering local marine research.



# Service Goals

## Facility Improvements

This year, SCMI/OSI has worked hard to meet the service goal to grow the facility for our member institutions to carry out their educational and research activities. The R/V Yellowfin was out fitted with new tier 4 engines and generators thanks to a grant from the South Coast Air Quality Management District Carl Moyer Program. The R/V Yellowfin now has the most fuel efficient and cleanest engines in the research fleet. The R/V Yellowfin will also be transitioning to a vegetable base hydraulic fluid.

Along with the \$312,000 upgrade of the R/V Yellowfin, SCMI also saw improvements in our building with a completely remodeled classroom. SCMI's classroom now has new tables and chairs that can combine to form a long conference table for board meetings and separate tables to accommodate AAUS Scientific Dive, MOTC courses, teaching and conferencing needs. The remodeled space also features new carpeting, white board and a projector to meet all of SCMI's member needs.

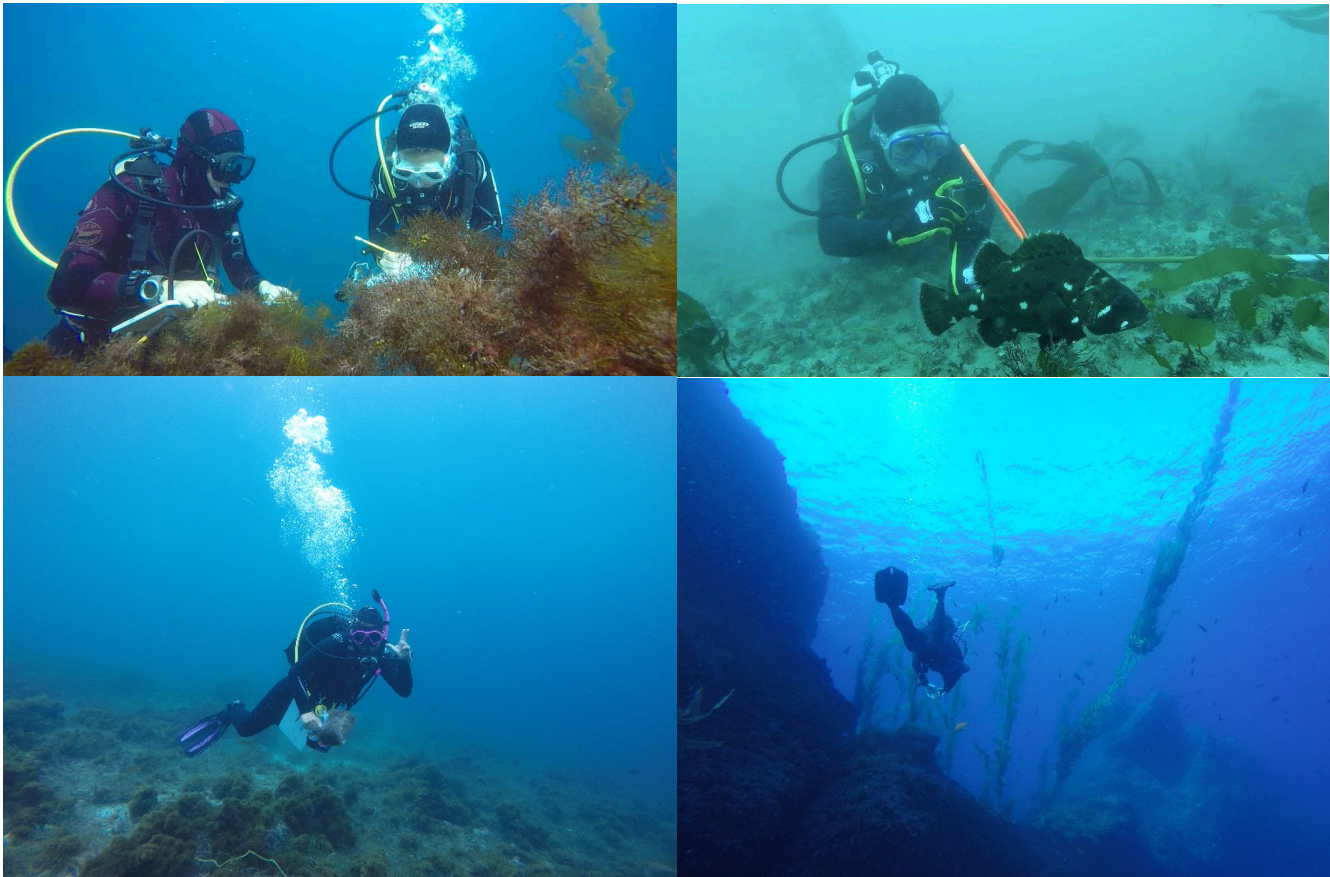


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## OSI AAUS Research Dive/Boating Program

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**Dive Operations:** We currently have 105 Active Scientific Divers, with 2729 dives logged YTD – this number is expected to increase as divers continue catching up on logs from the Summer and Fall seasons. Three AAUS Scientific Diver courses were offered in 2018 – one during the Winter and two during the Summer. Twenty-five new divers received training, and cohorts were comprised of candidates from CSUN, CSULB, CSUF, CPP, CSUCI and Occidental College. We anticipate offering three AAUS Scientific Diver courses in 2019, and are currently exploring the possibility of incorporating the third in coordination with the Catalina Semester. The Dive Locker was improved with renovations including additional overhead storage, workbenches and rinse bins. We began offering Nitrox training courses during 2018 and expect to incorporate that certification into the AAUS course. Nitrox fills from the new system are now approaching fifty percent of capacity. We’ve refurbished the banks from the old fill station and will be integrating them into the new system to help with the growing demand. In addition, an initial purchase of five sets of dive gear for the locker has been made, and we expect to purchase five more sets this fiscal period. We are also building an inventory of DAN combination O<sub>2</sub> & First Aid kits available for checkout for dive operations.



**Boat Operations:** We conducted two five-day Motorboat Operator Training Courses (MOTC) for non-experienced boat operators during the 2018 Spring Break a total of twelve participants. In conjunction with our AAUS Scientific Diver courses, we offered one five-day MOTC during the month of July for six participants. An additional four-day course was conducted in July, for Cal Poly Pomona for six participants. Cohorts were comprised of candidates from CSU/OSI, Occidental College, NOAA, and CDFW. During 2019, five-day courses will again be offered during Spring Break, and in conjunction with our Summer AAUS Scientific Diver courses. Over the past year we've continued to build our inventory of PFDs, exposure suits and safety gear required to teach the course.

**New Dive and Boating Management System:** The contract for the obsolete AAUS weblogger system is due to expire in less than one year and AAUS has been at a loss for a replacement system. Anticipating this need, we've been working for the past two years with a local web developer to produce a modern, fully integrated, system to service both dive and boating operations. This was a 'from scratch' build, to our specifications, which will allow for online filing of dive and float plans, includes an online document repository, and gives end-users more control over their individual accounts. It provides automated alerts for expirations of certifications and equipment, as well as compliance alerts to PIs and Lead Divers of divers and boat operators listed on submitted plans. Beta testing was completed earlier this year, and we're hoping to complete the migration from the old system by the end of this year. The system is very intuitive, and includes "quick-tip" training videos, but additional training will be available as needed.



# Educational Goals

## CSU Marine Biology Semester on Catalina Island

The CSU Marine Biology Semester on Catalina was hosted by CSU Long Beach in the Fall 2017 semester. The semester continues to be a unique opportunity for CSU students to experience hands-on marine biology and guide them to careers in marine science. There were a total of 17 students this semester from 6 different CSUs. The semester was taught by professors: Dr. Chris Lowe from CSULB, Dr. Jayson Smith from Cal Poly Pomona, and Dr. Erika Holland from CSULB.



CSU Marine Biology Semester on Catalina Fall 2017			
University	# Students	Professors	Courses
CSU Channel Islands	1	Dr. Jayson Smith	OSI 425/525 Marine Phycology
CSU Long Beach	11	Dr. Chris Lowe	OSI 419/519 Marine Ichthyology
CSU Los Angeles	1	Dr. Erika Holland	OSI 490/590 Special Topics- Aquatic Toxicology
Cal Poly Pomona	3		OSI 496/596 – Directed Research
Cal Poly San Luis Obispo	1		
<b>Total # Students</b>	<b>17</b>		
<b>Total # Schools</b>	<b>6</b>		

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## Demonstration Yellowfin Cruises

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Our Yellowfin demonstration cruises have continued to be a valuable resource for students to experience hands on marine science. With the help of our engineer, Denis, the on board demonstration techs were able to give classes experience using real-world equipment and techniques such as Van Veen grabs, plankton tows, biological dredges and otter trawls.

SCMI has develop a new system aimed at facilitating data collection and entry from research cruises. This data collection will keep track of species collected in our otter trawls and can allows us to better pin point species faculty and students may be interested in.



## Research Goals

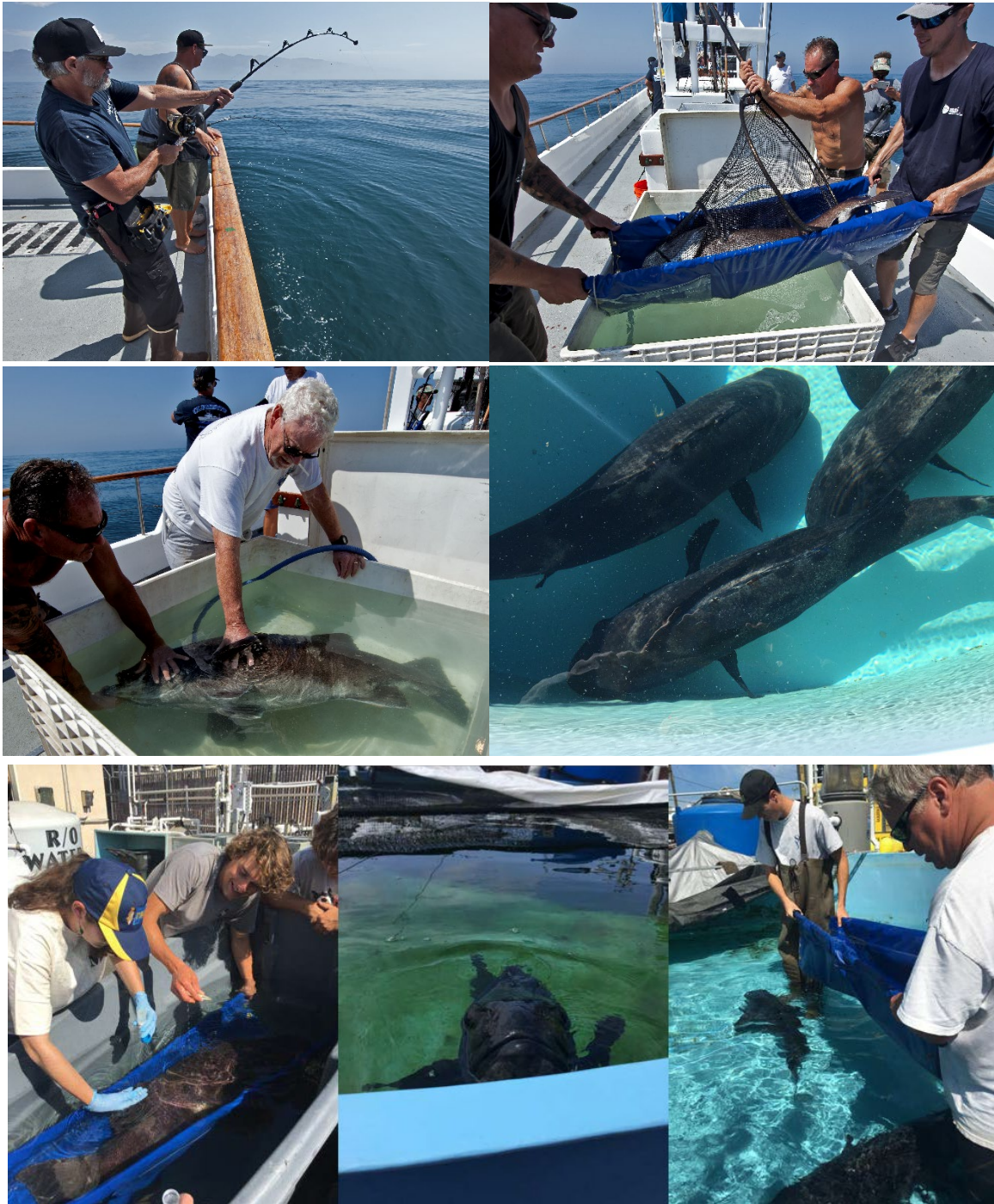
OSI/SCMI has provided vessel support, equipment, and expertise to researchers from member and non- member campuses, and other organizations. This year SCMI has assisted researchers from University of Southern California, Occidental College, California State Universities Northridge and Long Beach, Claremont Colleges, NOAA, and the Ports of Los Angeles and Long Beach.

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## Giant Sea Bass Acoustic Study

Dr. Larry Allen's Giant Sea Bass Acoustic study is still on going at SCMI. The three Giant Sea Bass are thriving in the tanks at SCMI and in June 2018, began to court and make sounds. Dr. Allen is very optimistic that he will soon be able to characterize the sounds made by the male Giant Sea Bass in the tank. The information gathered by this study will allow Dr. Allen to complete the description of the courtship and mating behaviors of this ecologically and economically important species.

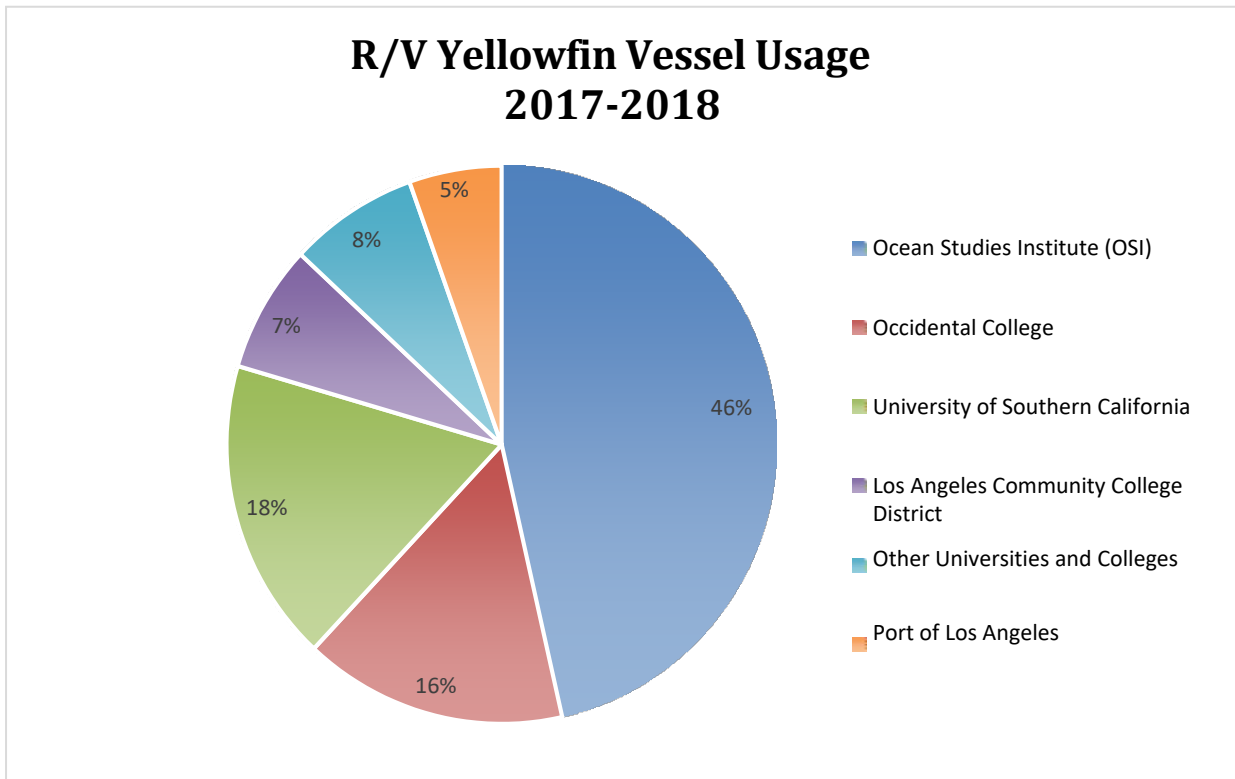


# Vessel Use

## R/V Yellowfin Usage by Institutions

This year, the R/V Yellowfin logged approximately 736 hours of vessel use. The vessel usage was down from last years by about 380 hours. This was due to the R/V Yellowfin dry-docking and haul-out for engine repower during the summer. The trips consisted of a combination of class laboratories, graduate and university research, and contracted research. SCMI’s goal is to continue increasing vessel usage among SCMI member institutions and to broaden vessel usage to other institutions and disciplines.

Institute Name	Number of Students	Number of Faculty/Researchers	Hours of Vessel Use	Number of Cruises
Ocean Studies Institute (OSI)	1255	80	342	70
Occidental College	179	70	114	21
University of Southern California	73	108	129.5	17
Los Angeles Community College District	210	0	54.5	11
Other Universities and Colleges	334	3	56	15
Port of Los Angeles	0	10	40	5
<b>Yearly Total</b>	<b>2051</b>	<b>271</b>	<b>736</b>	<b>139</b>





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## Ocean Studies Institute Board of Governors 2017-2018

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*Chairperson:* Christopher Lowe Ph.D.  
*Vice Chairperson:* Larry Allen Ph.D.  
*Member at Large:* Sean Anderson Ph.D.  
*Director-Coordinator:* Daniel Pondella Ph.D.

### **CSU Dominguez Hills**

*Academic*  
John Keyantash Ph.D.  
*Administrative*  
Philip LaPolt Ph.D.

### **CSU Fullerton**

*Academic*  
Danielle Zacherl Ph.D.  
*Administrative*  
Marie Johnson Ph.D.

### **CSU Long Beach**

*Academic*  
Christopher Lowe  
Ph.D.  
*Administrative*  
Curtis Bennett Ph.D.

### **CSU Los Angeles**

*Academic*  
Elizabeth Torres Ph.D.  
*Administrative*  
Pamela Scott-Johnson  
Ph.D.

### **CSU Northridge**

*Academic*  
Larry Allen Ph.D.  
*Administrative*  
Jerry Stinner Ph.D.

### **CSU Pomona**

*Academic*  
Jayson Smith  
Ph.D.  
*Administrative*  
Tina Hartney  
Ph.D.

### **CSU San Bernardino**

*Academic*  
Britt Leatham Ph.D.

### **CSU Channel Islands**

*Academic*  
Sean Anderson Ph.D.  
*Administrative*  
Karen Carey Ph.D.

### **CSU San Marcos**

*Academic*  
James Janovich Ph.D.  
*Administrative*  
P. Wesley Schultz Ph.D.

### ***Chancellor's Office Liaison***

Steve Murray Ph.D.

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## Ocean Studies Institute FY Budgets 2013-2014 through 2017-2018

<b>Fund Description</b>	<b>FY 2013-14</b>	<b>FY 2014-15</b>	<b>FY 2015-16</b>	<b>FY 2016-17</b>	<b>FY 2017-18</b>
<b>Revenue</b>					
Salaries and Wages <sup>(1)</sup>	\$371,145	\$397,139	\$481,698	\$492,443	\$557,411
Benefits	\$163,813	\$186,408	\$214,827	\$250,093	\$321,836
OSI Member Contributions <sup>(2)</sup>	\$75,000	\$76,500	\$76,500	\$76,500	\$76,500
OE&E <sup>(1)</sup>	\$31,774	\$17,357	\$63,964	\$88,324	\$116,702
Misc Revenue and User Fees <sup>(4)</sup>	\$46,928	\$47,197	\$66,390	\$82,265	\$48,756
<b>Total</b>	<b>\$688,661</b>	<b>\$724,601</b>	<b>\$903,379</b>	<b>\$989,625</b>	<b>\$1,121,205</b>
<b>Expenditures</b>					
Salaries and Wages	\$413,445	\$412,271	\$448,147	\$490,658	\$614,598
Benefits	\$168,254	\$189,592	\$214,827	\$256,605	\$321,905
Operating Expenses <sup>(3)</sup>	\$90,356	\$80,129	\$199,344	\$194,857	\$165,549
Accounting Charges	\$1,761	\$2,694	\$2,863	\$2,106	\$1,799
<b>Total</b>	<b>\$673,816</b>	<b>\$684,687</b>	<b>\$865,181</b>	<b>\$944,226</b>	<b>\$1,103,850</b>
<b>End-of-Year Balance</b>	<b>\$14,845</b>	<b>\$39,914</b>	<b>\$38,198</b>	<b>\$45,399</b>	<b>\$17,355</b>

<sup>(1)</sup> In FY 2015-16, Revenue includes CO augmentation for Dive and Boating Safety Officer at \$115,000 (\$75,000 for Salary and \$40,000 for Other Expenses)

<sup>(2)</sup> OSI Members contributions are received annually and vary among the nine OSI institutions based on historic patterns of facilities and service use

<sup>(3)</sup> Operating Expenses include contractual services, supplies, minor boat repairs, and diving related expenses

<sup>(4)</sup> Miscellaneous OSI Revenue comes from indirect cost returns from external grants; user fees are associated with use of the R/V Yellowfin. This revenue source varies from year to year



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## Southern California Marine Institute Staff 2017-2018 (OSI State Employees)

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Dr. Daniel Pondella  
Director

Adriana Stowell  
Budget & Research Coordinator

Carrie Wolfe  
Research & Education &  
Operations Coordinator

Darrell Montague  
OSI Dive/Boat Safety Officer

Dennis Dunn  
Captain  
R/V Yellowfin

Bill Fike  
Facilities &  
Seawater Coordinator

Jim Cvitanovich  
OSI Dive Safety Officer

Denis Mahaffy  
Vessel Engineer

Mark Loos  
Aquarist & Instructional Support  
Technician

Joel Ingram  
Small Vessel Support Technician  
& Relief Captain

Ben Grime  
Instructional Support Technician

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