California State University

Ocean Studies Institute

Annual Report
2015-2016

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Mission

The OSI mission is to facilitate, advance, and support ocean studies[1] programs and activities on behalf of the California State University (CSU) that contribute to the advancement of knowledge and that provide the education and training necessary to inform the public and produce future professionals and regional, state, and national leaders in all matters concerning ocean and coastal systems and affairs.

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[1] As used in this document, *ocean studies* is defined broadly and spans ocean- and coastal-related programs in such disciplines as the biological sciences, social sciences (including anthropology and sociology), chemistry, geology, earth and atmospheric sciences, physics, engineering, economics, and marine affairs. In this context, marine affairs is defined broadly to include largely interdisciplinary and applied programs concerned with the uses of ocean and coastal areas and their resources, including coastal zone management, marine policy, and marine commerce.

Who We Are

The OSI is a consortium of nine southern California CSU campuses: Channel Islands, Dominguez Hills, Fullerton, Long Beach, Los Angeles, Northridge, Pomona, San Bernardino, and San Marcos. The OSI complements other campus-based programs and consortia in the CSU and provides a cost-effective means for leveraging resources and promoting collaborative ocean and coastal programs and activities in the southern California region. As a member of the California State University's Council on Ocean Affairs, Science & Technology (COAST), the OSI adds to the CSU network of ocean studies programs and facilities and contributes to the goal of promoting marine science research and education throughout the CSU system. OSI is also a member of the Southern California Marine Institute (SCMI) which combines the marine resources of the University of Southern California, Wrigley Institute for Environmental Studies, University of California Los Angeles, Occidental College, Los Angeles Community College District, and The Bay Foundation. As a partner in the SCMI consortium, OSI is able to engage in specialized marine research that would not otherwise be possible independently, and to maximize the use of resources as well as collaborate on projects. SCMI/OSI is located in the heart of the Port of Los Angeles on Terminal Island. Our facility is a full-functioning marine research institute equipped with offices, laboratories, classrooms, a seawater filtration system, machine and wood shops, and a warehouse. There is ample docking space for small boats from various universities and organizations, as well as the research vessel R/V Yellowfin.

Introduction

OSI has continued to work with SCMI on a new business plan in preparation for a multidisciplinary expansion to occur with the anticipated move to the new AltaSea facility at Berth 57 at the old City Dock 1 site in 2020. The AltaSea project has gained momentum, with Gensler having recently released proposed designs and construction scheduled to start very soon. SCMI/OSI staff members have continued their work to improve the current facility for use by faculty and students by expanding the seawater filtration system, installing a new compressor in the dive locker, and developing a small boat operations course (which many OSI members are already taking advantage of). A new abalone aquaculture facility has been built to encompass multiple collaborative studies with Cal Poly Pomona, The Bay Foundation, NOAA and SCMI. The R/V Yellowfin has continued to provide valuable ship access to OSI members and their classes.

What's New?

AltaSea Update

Plans for the AltaSea project, a 35 acre marine research campus at the Port of Los Angeles, have gained momentum since its unveiling on June 16, 2013. OSI has been heavily involved in the design and functionality of the Phase 1 facility. Gensler has recently unveiled proposed plans and designs along with the projected dates of phase completions. Phase 1 includes renovating 180,000 square feet of warehouse for research and business labs and is scheduled to open early 2017. Phase 1b, deemed the "science hub," has a scheduled opening in 2020 (SCMI will be the first tenant of phase 1b). The final product will be completed in 2020 as the hub for outreach and public use. In other exciting news, Altasea recently received a letter of strong support from the mayor of Los Angeles, Eric Garcetti. He stressed economic, environmental, and technologic advancement. SCMI is especially excited for what Altasea will provide for the Port of LA and surrounding communities, and OSI is excited about the opportunities Altasea will open up for CSU students and faculty for research, education, and community outreach and partnerships.

Annual Budget

Last 3 years

The Ocean Studies Institute's (OSI) funds are administered by the California State University Long Beach (CSULB) campus and ranged from $688,661 in FY 2013-14 to $903,444 in FY 2015-16 (Table 1). Expenditures over the same period ranged from $673,816 to $865,181. The increase in revenue and expenditures during FY 2015-16 was driven by the funding of a new position for a Diving and Boating Safety Officer, the first new OSI position to be funded for at least 15 years.

OSI funds are obtained in three ways: 1) annual funding from the CSU, which is part of the CSULB General Fund, and designated as salaries and wages, benefits, and OE&E; 2) annual institutional contributions from OSI's CSU members, which are transferred to CSULB each year; and, 3) revenue from indirect cost returns from external grants and user fees originating from use of the OSI vessel/facilities by member institutions.

Table 1. OSI Budgets for FY 2013-14 Through 2015-16. Values Rounded to Nearest Dollar.

Fund Description	FY 2013-14	FY 2014-15	FY 2015-16
Revenue			
Salaries and Wages [1]	$371,145	$397,139	$483,198
Benefits	$163,813	$186,408	$214,827
OSI Member Contributions [2]	$75,000	$76,500	$76,500
OE&E [1]	$31,774	$17,357	$62,529
Misc Revenue and User Fees [4]	$46,928	$47,197	$66,390
Total	$688,661	$724,601	$903,444
Expenditures			
Salaries and Wages	$413,445	$412,271	$448,147
Benefits	$168,254	$189,592	$214,827
Operating Expenses [3]	$90,356	$80,129	$199,344
Accounting Charges	$1,761	$2,694	$2,863
Total	$673,816	$684,687	$865,181
End-of-Year Balance	$14,845	$39,914	$38,263

[1] 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)

[2] CSU Members contributions are received annually and vary among the nine OSI institutions based on historic patterns of facilities and service use

[3] Operating Expenses include contractual services, supplies, minor boat repairs, and diving related expenses

[4] 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

The annual OSI funding from the CSU (salaries and wages, benefits, and OE&E) accounts for the majority of OSI revenue, amounting to more than 80 % of the funds received during this period. Most of these General Fund revenues are designated for salaries and wages (54.0 %) and benefits (24.4 %), whereas the budget for OE&E amounted to only 4.8 % of OSI revenues over the last three years.

Member contributions provided 9.8 % of OSI revenues during this period. A total of $75,000 was received in OSI member contributions during FY 2013-14; $76,500 was received in FY 2014-15 and FY 2015-16 with the addition of the CSU Channel Islands campus (Table 1). These funds are added to the annual funding received from the CSU and used to meet annual expenditure needs.

Miscellaneous revenue and user fee income is derived from two sources: user fees and indirect revenues from grants and contracts. The amount of income from these sources averaged 6.9 % of the total over the three-year period and varied from year to year depending on grant and contract and user activity (Table 1). Most of this revenue comes from user fees paid by OSI members for educational and research vessel use and facility services. User fees over the three-year period ranged from $46,928 in FY 2013-14 to $66,390 in FY 2015-16, whereas indirect grant and contract revenues ranged from a high of $4,465 in FY 2013-14 to lows of $65 during FY 2014-15 and 2015-16 (Table 1). Miscellaneous revenue and user fee income is deposited into a Trust Fund (ER005) administered by CSULB. Annual budgeting for the Trust Fund combines the End-of-Year Balance, if any, carried forward from the previous year with income received during the new fiscal year.

OSI expenditures over the three-year period were mostly for salaries and wages (54.0 %) and benefits (25.8 %) followed by OE&E (16.6 %). Funds from member contributions were used to supplement General Fund revenues to cover expenses for salaries and wages and benefits and OE&E; funds from miscellaneous revenue and user fees were largely used to meet OE&E needs. Accounting fees paid to CSULB for budget administration amounted to an average of only 0.3 % of OSI expenditures over the three-year period. During each fiscal year, a small, positive End-of-Year Balance was achieved (Table 1); this ranged from $14,845 in FY 2013-14 to $38,263 in FY 2015-16 and averaged 4.2 % over the three-year period. During each year, this balance was carried forward and made available during the next FY.

The vast majority of OSI expenditures from FY 2013-14 to FY 2015-16 supported salaries and wages and benefits of personnel (Table 1). Total funded FTE ranged from 8.51 in FY 2013-14 to 7.41 in FY 2014-15 (Tables 2). Over the same three-year period, expenditures for salaries ranged from $412,271 (FY 2014-15) to $448,147 (FY 2015-16) and expenditures for benefits ranged from $168,254 (FY 2013-14) to $214,827 (FY 2014-15) (Table 3).

Not including Student Assistants, a total of 13 different positions were funded by OSI over these three years (Table 2). Eight were funded each year; however, only five (Facilities Coordinator & Aquarist,

Instructional Support Tech I, Research, Education, Vessel Scheduling Coordinator, Captain, and Vessel Engineer positions) were funded at 1.00 FTE. The Captain, Vessel Engineer, Research-Education and Vessel Scheduling Coordinator and the Facilities Coordinator and Aquarist positions were the highest salaried among these eight positions (Table 3). In addition, OSI funded the SCMI Director position at 0.75 to 0.79 FTE during this period. As appropriate, the SCMI Director was the highest-salaried of OSI funded personnel. The SCMI Director provides on-site management and administration of personnel, facilities, and services essential for carrying out OSI's mission.

Table 2. OSI Funded Positions (as Fractions of Full Time Position Equivalents) for FY 2013-14 to FY 2015-16. Position Fractions Based on Full-Time Workload of 2088 Hours per Year Except for Diving Safety Officer and Student Assistants.

Position	FY 2013-14	FY 2014-15	FY 2015-16	Brief Position Description
SCMI Director Position	0.75	0.79	0.75	Responsible for the implementing policies and procedures established by the SCMI Board of Directors and had overall responsibility for the management of SCMI facilities, budget, personnel, and programs.
Administrative Analyst Specialist		0.33	0.58	Responsible for the administrative and fiscal services for the Southern California Marine Institute and the Ocean Studies Institute.
Facilities Coordinator & Aquarist	1.00	1.00	1.00	Responsible for the routine maintenance and repairs at the facility, maintenance of the seawater system, and serve as Safety Officer.
Instructional Support Assistant I	0.75	0.50		Perform support services on the vessel R/V Yellowfin and in the laboratory for Consortium members of SCMI and OSI. Administer the CSU Catalina Semester application process, maintain the SCMI website, and write SCMI newsletters and annual reports
Instructional Support Tech I	1.00	1.00	1.00	Perform support services and instruction on the vessel R/V Yellowfin and in the laboratory for Consortium members of SCMI and OSI. Provide supplies, equipment and related logistical support to upper and lower division laboratory courses and well as research endeavors.
Marine Support Technician	0.75			Responsible for providing support services on the vessels. Act as engineer and deckhand during research and educational cruises. Perform routine maintenance and repairs on vessels.
Research, Education, Vessel Sched. Coord.	1.00	1.00	1.00	Responsible for support and implementation of NOAA's Ocean Observing projects on commercial ships. Responsible for planning and organizing vessel, research, education support for SCMI and OSI projects.
Scheduling Coordinator	0.58			Responsible for providing day-to-day continuity and on-scene coordination and scheduling of the sea-going activities.
Diving and Boating Safety Officer			0.33	Direct and manage the OSI AAUS approved Scientific Diving program and the Boating Safety program.
Diving Safety Officer[1]	0.51	0.21	0.56	Direct and manage the OSI AAUS approved Scientific Diving program.
Captain	1.00	1.00	1.00	In command of oceanographic research vessel. Responsible for the safe navigation, operation, care, and maintenance of the vessel to support OSI/SCMI research and education endeavors.
Relief Captain	0.17	0.25	0.58	Responsible for acting as a back up Captain and Vessel Engineer
Vessel Engineer	1.00	1.00	1.00	Responsible for maintenance and repairs on the vessels including engines and machinery. Act as Engineer and Deckhand on vessel and operate deck machinery during research and educational cruises.

Position					
Student Assistant[2]	0.33	0.33	Assist with support services on the vessel R/V Yellowfin and in the laboratory for Consortium members of SCMI and OSI. Assist with the CSU Catalina Semester application process, maintain the SCMI website, and write SCMI newsletters and annual reports		
Totals	8.51	7.41	8.13		

[1]The Diving Safety Officer Position Was Occupied by a CSU Retired Annuitant During FY2013-14 through FY 2015-16; FTE fraction based on maximum of 960 hrs/yr.

[2] Student Assistant FTE fraction based on maximum of 1200 hrs/yr (20 hrs/week for 9 mo and 40 hrs/week for 3 mo)

To meet OSI Diving Safety needs, a Diving Safety Officer position was funded each year; however, the occupant of this position was a retired CSU annuitant with restricted work hours until FY 2015-16. This was a temporary measure, which was remedied in the latter part of FY 2015-16 with the addition of a newly funded full-time CSU position for a full-time Diving and Boating Safety Officer.

Table 3. OSI Salaries and Wages and Benefits Expenditures for OSI Funded Positions for FY 2013-14 to FY 2015-16.

Position	Salaries and Wages			Benefits		
	FY 2013-14	FY 2014-15	FY 2015-16	FY 2013-14	FY 2014-15	FY 2015-16
SCMI Director Position	$83,113	$100,710	$98,401	$26,336	$34,316	$34,442
Administrative Analyst Specialist		$13,579	$23,478		$7,045	$13,784
Facilities Coordinator & Aquarist	$44,976	$46,320	$54,369	$21,244	$23,248	$25,894
Instructional Support Assistant I[1]	$33,414	$22,949		$15,349	$12,661	
Instructional Support Tech I	$41,063	$43,116	$32,710	$28,128	$29,671	$24,750
Marine Support Technician	$30,979			$3,260		
Research, Education, Vessel Sched. Coord.	$48,386	$55,188	$55,803	$29,202	$32,256	$34,040
Scheduling Coordinator	$12,486			$181		
Diving and Boating Safety Officer			$18,750			$11,809
Diving Safety Officer[2]	$16,456	$6,630	$18,019	$239	$96	$261
Captain	$55,126	$55,565	$59,876	$23,533	$27,506	$35,574
Relief Captain 1	$509	$12,840	$32,365	$7	$186	$9,388
Relief Captain 2	$2,161			$31		
Vessel Engineer	$44,775	$44,705	$52,325	$20,745	$22,556	$24,883
Student Assistant		$5,601	$2,050			
Salaries Adjustment		$5,068				
Totals	$413,445	$412,271	$448,147	$168,254	$189,540	$214,827

[1]Instructional Support Assistant 1 Salaries and Wages and Benefits were funded in part from the CSULB Trust Fund Account (ER005) during FY 2013-14 ($8,334 S&W plus $4,441 Benefits) and FY 2014-15 ($5,722 plus $3,132).

[2]The Diving Safety Officer Position Was Occupied by a CSU Retired Annuitant from FY201-14 through FY 2015-16 resulting in limitations on hours worked and salary and wages earned as well as benefit payments.

OSI resources are managed by SCMI and are combined with annual revenue generated by SCMI from various sources to carryout OSI and SCMI goals and strategies. SCMI provides vessel docking and support facilities, laboratories, seawater system, diving and logistical support for OSI, and meets other OSI needs not attainable in the absence of a shore-side laboratory facility. Moreover, as a consortium of southern California institutions, SCMI represents a cost-effective means of sharing and not duplicating expensive facilities and equipment that would otherwise not be possible for CSU faculty and students to access given OSI's level of fiscal support.

The SCMI budget by category for income and expenditures for the three-year period from FY 2013-14 through FY 2015-16 is provided in Table 4. These figures separate out SCMI income from OSI funding, which is reported in Table 3; SCMI-only income varied considerably from year-to-year, as did expenses, based on prevailing circumstances. Over the three-year period, SCMI income (separate from OSI contributions) ranged from $544,045 (FY 2014-15) to $490,123 (FY 2015-16).

Table 4. SCMI Budgets by Category for FY 2013-14, FY 2014-15, and FY 2015-16. Values are Rounded to Nearest Dollar and do Not Include OSI Budget Contributions Listed in Table 3.

Fund Description	FY 2013-14	FY 2014-15	FY 2015-16
Income			
SCMI Carryover Funds	$49,306	$39,127	$73,955
Catalina Semester Income (OSI)	$1,400	$650	$50
Diving Program Income	$4,364	$13,100	$9,073
Vessel Program Income	$88,176	$63,460	$30,120
SCMI Contributions and Donations	$60,000	$58,000	$72,315
Miscellaneous SCMI Income	$1,966	$8,831	$5,986
Facility Rental Income	$94,588	$175,858	$100,317
SCMI Grant and Contract Income	$198,986	$185,019	$198,308
Total	$498,785	$544,045	$490,122
Expenditures			
SCMI Personnel (Salaries, Benefits, Administrative Costs)[1]	$197,843	$222,252	$84,747
General Office Expenses	$6,571	$10,757	$8,253
Travel (NOAA PMEL Contract and Overnight Cruise Time)	$575	$8,705	$10,449
Facility and Seawater System Operations	$142,454	$174,203	$167,106
Vessel and Diving Program Support	$36,334	$16,727	$57,078
Catalina Semester Support (OSI)	$6,987	$9,788	$11,015
AltaSea Support	$19,000	$21,139	$2,700
Miscellaneous Expenses[2]	$49,894	$6,519	$81,212
Total	$431,171	$470,090	$422,561
End-of-Year Balance	$39,127.	$73,955	$67,562

[1]Note: payroll expenses reflect FY in which payroll invoices were paid. Personnel receive paychecks from CSULB and then SCMI is invoiced and reimburses CSULB. There is a time lag between payment and invoicing. Payroll figures in this table do not match individual

salaries and wages and benefits listed in Table 6. Invoices are received one month after the pay period and paid at net-30. The following pay periods are included in each fiscal year

[2]Miscellaneous Expenses include encumbrance balances (i.e., the amount of funds left over in unspent purchase orders at the close of the fiscal year), reimbursements (i.e., emergency medical supplies and small boat operations), and Automobile registration.

Because SCMI partners and shared facilities, equipment, and vessels are essential for OSI to carry out its mission, OSI contributes significantly to annual SCMI revenues and relies on SCMI leadership to maintain essential services and meet OSI educational and research needs. OSI is strongly dependent on SCMI for generating the revenue to support additional personnel needs (e.g., back-up vessel captains) and OE&E expenses, which are costly and are only marginally supported by historical and current OSI budgets. Considering all funding sources, OSI accounted for $688,661, $724,601, and $903,444, and SCMI $498,785, $544,045, and $490,123, of total income available to support OSI and SCMI programs during FY 2013-14, 2014-15, and 2015-16 (Tables 1 and 4). The OSI contribution ranged between 57.1 % (FY 2014-15) and 64.8 % (FY 2015-16) of the combined total revenue stream over the three-year period.

Excluding student assistants and personnel hired specifically to carry out SCMI grant and contract funded projects, OSI's contributions to personnel amounted to 8.67, 7.13, and 7.79 FTE and SCMI contributed 2.76, 3.54, and 2.35 FTE during FY 2013-14; 2014-15, and 2015-16, respectively (Tables 2 and 5). The percentage of total (OSI + SCMI) salaries and wages (including student assistants and grant and contract employees) paid from OSI funds ranged from 68.7 % to 81.2 % and benefits from 78.7 % to 90.0 % over the three-year period (calculated from data in Tables 3 and 6). In contrast, SCMI contributed between $173,883 and $270,252, or an average of 69.6 %, of combined OSI and SCMI OE&E expenditures between FY 2013-14 and FY 2015-16 (percentages from data reported in Tables 3 and 4).

Four sources provide the majority of SCMI annual income: SCMI grant and contract revenue (37.9 %), facility rental income (24.2 %), SCMI contributions and donations (12.4 %), and SCMI non-OSI vessel program income (11.8 %).

Annual SCMI expenditures were made largely to support personnel costs in addition to OSI-funded positions, facility and seawater system operations, and vessel and diving programs. Personnel costs (including salaries and wages, benefits, and administrative fees) ranged from $222,252 in FY 2014-15 to $84,747 in FY 2015-16 (Table 4). Facility and seawater system operational costs ranged from $142,454 to $167,106, and vessel and diving program costs from $16,727 to $57,078 over the same period. SCMI personnel costs averaged 32.9 % of expenditures, while costs for facility and seawater system operations amounted to 31.5 %, and vessel and diving programs 7.2 % over the three-year period.

A detailed listing of personnel (FTE, salaries and wages, benefits, and administrative fees for processing payroll) funded using SCMI-generated revenues is provided in Tables 5 and 6. Not including student assistants and personnel funded by grants and contracts, SCMI income was used to employ ten positions in addition to those funded by OSI. Most of these positions were funded inconsistently and at various levels from year-to-year as need arose and were necessary to provide key services for OSI and other SCMI participants. Most crucial were positions for an Assistant Director and Business Manager, an Administrative Analyst Specialist, a Diving Safety Officer, Relief Captains, Scheduling Coordinator, Marine Support Technician, and Demo Technicians. As a cost-savings measure, the Assistant Director and Business Manager Position was discontinued following the departure of its occupant in FY 2014-15. Accounting and Business duties were assumed by the Administrative Analyst Specialist, who was also funded partially by OSI.

Table 5. SCMI Funded Positions (as FTE Fractions) and Brief Position Descriptions. Position Fractions Based on Full-Time Workload of 2088 Hours per Year Except for Diving Safety Officer and Student Assistants.

Position Title	FTE FY 2013-14	FTE FY 2014-15	FTE FY 2015-16	Brief Position Description
Assistant Director, Business Mgr	1.00	0.67		Responsible for the overall direction of the administrative and fiscal services for the Southern California Marine Institute and the Ocean Studies Institute.
Administrative Analyst Specialist			0.42	Responsible for the administrative and fiscal services for the Southern California Marine Institute and the Ocean Studies Institute.
Demo Techs (n = 2) (SCMI)		0.33	0.33	Perform support services on the vessel R/V Yellowfin and in the laboratory for Consortium members of SCMI and OSI. Assist with the CSU Catalina Semester application process, maintain the SCMI website, and write SCMI newsletters and annual reports
Marine Support Tech	0.25	0.58		Responsible for providing support services on the vessels. Act as engineer and deckhand during research and educational cruises. Perform routine maintenance and repairs on vessels.
Scheduling Coordinator	0.42	0.50		Responsible for providing day-to-day continuity and on-scene coordination and scheduling of the sea-going activities.
Instructional Support Tech 1 (SCMI)			0.25	Perform support services and instruction on the vessel R/V Yellowfin and in the laboratory for Consortium members of SCMI and OSI. Provide supplies, equipment and related logistical support to upper and lower division laboratory courses and well as research endeavors.
Student Assistant[2] (SCMI)		0.09	0.50	Assist with support services on the vessel R/V Yellowfin and in the laboratory for Consortium members of SCMI and OSI. Assist with the CSU Catalina Semester application process, maintain the SCMI website, and write SCMI newsletters and annual reports
Diving Safety Officer[1]	0.40	0.84	0.43	Direct and manage the OSI AAUS approved Scientific Diving program.
Relief Captain 1	0.33	0.50	0.42	Responsible for acting as a back up Captain and Vessel Engineer
Relief Captain 2	0.36	0.03		Responsible for acting as a back up Captain and Vessel Engineer
Demo Tech 1 (SDSP Project)	0.05	0.04	0.06	Responsible for conducting the San Diego Salt Ponds restoration project
Demo Tech 2 (SDSP Project)	0.29	0.18	0.34	Responsible for conducting the San Diego Salt Ponds restoration project
Demo Tech 3 (SDSP Project)	0.25	0.15	0.30	Responsible for conducting the San Diego Salt Ponds restoration project
Demo Tech 4 (SDSP Project)			0.28	Responsible for conducting the San Diego Salt Ponds restoration project
Student Assistant[2] (SDSP Project)	0.05		0.05	Responsible for conducting the San Diego Salt Ponds restoration project

Position				Description
Instructional Support Tech 1 (Fish Tracking)	0.28			Responsible for conducting fish tracking study for the Port of Los Angles and Port of Long Beach
Demo Tech (Fish Tracking)	0.49	0.36		Responsible for conducting fish tracking study for the Port of Los Angles and Port of Long Beach
Student Assistant 1[2] (Fish Tracking)	0.17			Responsible for conducting fish tracking study for the Port of Los Angles and Port of Long Beach
Student Assistant 2[2] (Fish Tracking)	0.37			Responsible for conducting fish tracking study for the Port of Los Angles and Port of Long Beach
Student Assistant 3[2] (Fish Tracking)	0.17			Responsible for conducting fish tracking study for the Port of Los Angles and Port of Long Beach
Student Assistant 4[2] (Fish Tracking)	0.08			Responsible for conducting fish tracking study for the Port of Los Angles and Port of Long Beach
Student Assistant 5[2] (Fish Tracking)	0.37			Responsible for conducting fish tracking study for the Port of Los Angles and Port of Long Beach
Student Assistant 6[2] (Fish Tracking)	0.38			Responsible for conducting fish tracking study for the Port of Los Angles and Port of Long Beach
Student Assistant 7[2] (Fish Tracking)	0.12			Responsible for conducting fish tracking study for the Port of Los Angles and Port of Long Beach
Student Assistant 8[2] (Fish Tracking)	0.33			Responsible for conducting fish tracking study for the Port of Los Angles and Port of Long Beach
Totals	6.16	4.27	3.38	

[1]The Diving Safety Officer Position Was Occupied by a CSU Retired Annuitant During FY201-14 through FY 2015-16; FTE fraction based on maximum of 960 hours per year.

[2] Student Assistant FTE fraction based on maximum of 1200 hours per year (20 hours/week for 9 months and 40 hours per week for 3 months)

Table 6. SCMI Funded Positions: Salaries and Wages, Benefits, and Administrative Fees. Note: Payroll figures in this table do not match totals for salaries and wages and benefits listed in Table 4; see Table 4 footnote 1.

Position	Salaries FY 2013-14	FY 2014-15	FY 2015-16	Benefits FY 2013-14	FY 2014-15	FY 2015-16	Fees FY 2013-14	FY 2014-15	FY 2015-16
Assistant Director, Business Mgr	$70,008	$51,770		$41,038	$23,302		$2,221	$1,501	
Administrative Analyst Specialist			$17,500			$12,425			$1,795
Demo Techs (n = 2) (SCMI)		$7,938	$6,448		$115	$93		$483	$188
Marine Support Tech	$10,257	$24,503		$3,013	$7,060		$796	$1,894	
Scheduling Coordinator	$9,947	$9,181		$144	$133		$605	$559	
Instructional Support Tech 1 (SCMI)			$9,280			$135			$565
Student Assistant[3] (SCMI)		$1,100	$6,044		$16	$41		$67	$365
Diving Safety Officer[2]	$12,919	$26,792	$13,811	$187	$388	$200	$786	$1,631	$841
Relief Captain 1	$3,417	$9,888	$23,521	$50	$143	$10,527	$208	$602	$2,043
Relief Captain 2	$1,885	$903		$27	$13		$115	$55	
Demo Tech 1 (SDSP Project)	$1,294	$918	$1,504	$19	$13	$22	$78	$56	$92
Demo Tech 2 (SDSP Project)	$7,284	$4,536	$8,628	$106	$66	$125	$443	$276	$525
Demo Tech 3 (SDSP Project)	$6,152	$3,856	$7,583	$89	$56	$110	$375	$235	$462
Demo Tech 4 (SDSP Project)			$8,640			$125			$526
Student Assistant[3] (SDSP Project)	$702		$720			$7	$42		$43
Instructional Support Tech 1 (Fish Tracking)	$6,177			$90			$376		
Demo Tech (Fish Tracking)	$17,424	$12,760		$253	$185		$1,061	$777	
Student Assistant 1[3] (Fish Tracking)	$3,400			$49			$207		
Student Assistant 2[3] (Fish Tracking)	$7,480			$108			$455		
Student Assistant 3[3] (Fish Tracking)	$3,536			$51			$215		
Student Assistant 4[3] (Fish Tracking)	$1,700			$62			$106		
Student Assistant 5[3] (Fish Tracking)	$7,480			$62			$453		
Student Assistant 6[3] (Fish Tracking)	$7,752			$112			$472		

Student Assistant 7[3] (Fish Tracking)	$2,380			$41			$145	
Student Assistant 8[3] (Fish Tracking)	$6,664			$97			$406	
Totals	$187,858	$154,145	$103,679	$45,598	$31,490	$23,810	$9,566	$8,135	$7,445

[1]Administrative Fees = 6 % of Salaries and Benefits except for Assistant/Director Business Manager position where fees are 2 %.

[2]The Diving Safety Officer Position Was Occupied by a CSU Retired Annuitant During FY201-14 through FY 2015-16; FTE fraction based on maximum of 960 hours per year.

[3] Student Assistant FTE fraction based on maximum of 1200 hours per year (20 hours/week for 9 months and 40 hours per week for 3 months)

Educational Activities

CSU Marine Biology Semester on Catalina Island

Fall 2015 was another successful semester for the CSU Marine Biology Semester on Catalina. The semester is a unique opportunity students from across the CSUs to experience hands-on marine biology while working closely with a number of CSU faculty, engaging in research, and preparing for a career in marine science. The Fall 2015 Marine Biology Semester was a great success with a total of 10 students from four different CSUs attending. The semester was taught by professors: Dr. Christopher Lowe, Dr. Darren Johnson, Dr. Bengt Allen, Dr. Christine Whitcraft, all from CSULB, and Dr. Kathy Anne Miller from UC Berkeley, with guest lectures from Dr. Kathy Dickson (CSUF). We have received positive feedback from the participating students and are excited to see the program grow to more CSU campuses. Students conducted research projects on a large range of topics from elasmobranch habitat selection to photosynthetic rates of marine macroalgae.
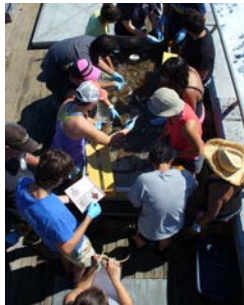
CSU Marine Biology Semester on Catalina Fall 2015			
University	# Students	Professors	Courses
CSULB	5	Dr. Christopher Lowe	OSI 419/519 - Marine Ichthyology (4 units)
CSUCI	2	Dr. Darren Johnson	OSI 455/555 - Ecology of Marine Communities (4 units)
CSUDH	2	Dr. Bengt Allen	OSI 425/525 - Phycology (4 units)
CSUF	1	Dr. Christine Whitcraft	OSI 496/697 - Directed Undergradute Research (3 units)
		Dr. Kathy Anne Miller	
Total # Students	10		
Total # Schools	4		

OSI AAUS Research Dive/Boating Safety Program

New Diving and Boating Safety Officer: In 2015, OSI requested additional funds from the CSU Chancellor's Office to hire a full-time diving and boating safety officer to meet the needs of the growing scientific diving and small boat operations programs. The OSI Diving program is managed by the Diving Safety Officer (DSO) and the CSU OSI Diving Control Board. The DSO is responsible for daily operation of the diving program, trains and ensures that all divers are in compliance with American Academy of Underwater Scientists (AAUS) and OSI Diving Control Board standards, teaches AAUS-certified scientific diving courses, and maintains all program records.

There are currently over 80 active divers in the OSI Diving program. These OSI divers logged over 3,300 dives in 2015 without incident. The number of OSI divers and dives has been increasing over the last 4 years and is expected to continue to increase. In addition, more divers are currently doing research at locations outside southern California and through other AAUS member institutions, requiring the maintenance and distribution of up-dated diving records to maintain full reciprocity. So far, the OSI Diving program has had a remarkable safety record considering the size and growth of the diving program. However, as of 2014 the DSO was a retired annuitant and could work only 0.5 time and funds were insufficient for diving related operating expenses, including dive instructor insurance and annual participation in meetings required to maintain AAUS certification. At the time, available

resources are inadequate for effective management of the current and future OSI diving program. Most University programs of this size have one full-time DSO and a part-time assistant DSO on staff (e.g., University of Hawaii, University of Miami, UC Santa Barbara, Oregon State University).

In addition to the need to safely manage scientific and educational diving activities on OSI campuses, there is a need to improve safety oversight of small-boat operations. There has been a growing small-boat fleet available to OSI faculty, students, and staff as part of the Southern California Marine Institute (SCMI) inventory and several OSI campuses have their own vessels for research and teaching purposes. In 2000, three UC researchers were killed in small-boat accident in the Gulf of California. This incident raised considerable concern among academic institutions regarding the use of small boats for scientific and educational purposes and pointed out the need for more comprehensive safety training. As a result, the "Scientific Boating Safety Association" (http://scientificboating.org/) was formed by several Universities and private institutions to formalize boating safety training and provide guidance for regulating small vessel operations for scientific purposes. This program is equivalent to federal MOTC boating standards and has a comparable instructor training program. Currently, the only CSU OSI campus with a SBSA certified instructor is CSULB, which has a Boating Safety Officer (BSO) on staff. OSI has access to 5 vessels that are maintained as part of the SCMI small boat fleet; other OSI campuses have 6 vessels that are maintained by their home campuses for marine operations. In addition, there are several CSU campuses that have small boats used for research and teaching in freshwater environments. Now, based on additional funding from the Chancellor's Office in 2015, we were able to hire a new full-time DSO/BSO (Darrell Montegue) and are now able to meet the needs of the growing diving and boating safety programs.

Current Dive Operations: We are anticipating the renovation and expansion of the dive locker at SCMI to be completed by the end of September 2016. New paint and floor treatment along with additional wall storage, rolling gear racks, rinse bins and lighting will be part of the renovation. An additional two hundred square feet will be added to the existing space to accommodate our new compressor, Nitrox maker, gas banks and full-containment fill station. Additional plans for this year include installation of a full gear test bench and purchase of an initial inventory of rental gear. New course offerings will include the addition of Nitrox training when the new fill station is up and running. Our Diving Control Board recently gave the green light to test the Hollis Explorer Rebreather unit for potential use for research diving. We are conducting field trials to determine suitability and developing policies and procedures for its use in the program.

Boat Operations: We will be rolling out our first MOTC (Motorboat Operator Training Course) for SCMI staff and OSI faculty in fall 2016. Developed by SBSA (the Scientific Boating Safety Association) in conjunction with the U.S. Department of Fish and Wildlife Service, this comprehensive four-day

course is intended to provide basic instruction on small boat operations to those will little or no experience. It covers operating systems, boat handling, rules-of-the-road, aids to navigation, communications, risk management, survival and rescue skills. OSI will start offering the course as part of our curriculum immediately following the AAUS Research Diver Course during Winter break. Going forward, we anticipate offering the MOTC following each Research Diver course, and once again during the late summer or early fall. The DSO has also discussed offering satellite course training for students and faculty at other OSI campuses, such as Channel Islands.
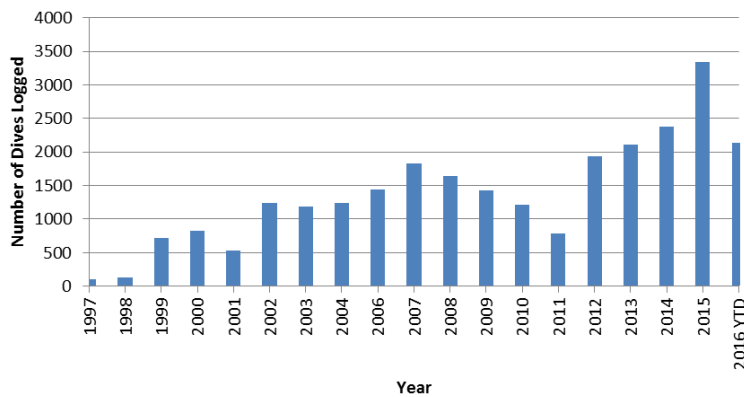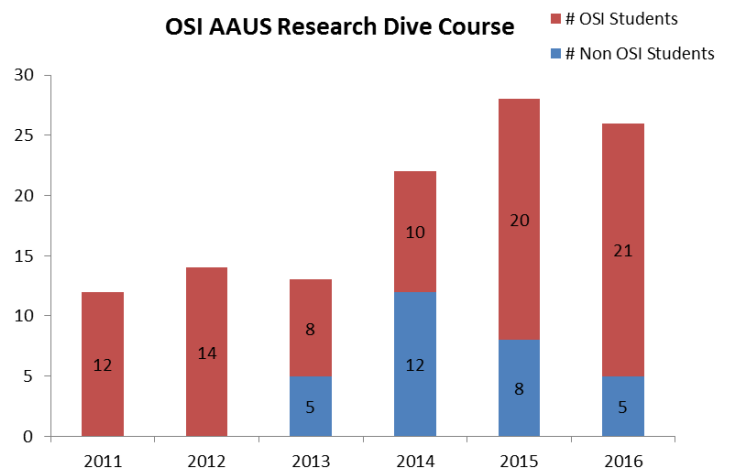
Demonstration Yellowfin Cruises

The CSU Ocean Studies Institute owns and operates the RV Yellowfin (80' research ship) to provide invaluable ship access for training of students, and faculty and student research. Our Yellowfin demonstration cruises have sustained their increased usage from last year providing 1,742 CSU students with invaluable ship-based training. With the help of our ship engineer and on-board demonstration techs we were able to give classes experience using real-world equipment and techniques such as VanVeen grabs, plankton tows, biological dredges and otter trawls not available to most major Universities that do not have access to ship resources. El Nino conditions made for exciting and unique sea conditions and marine life. Students were able to experience warmer than usual waters, which brought rare species such as seahorses and puffer fish to southern Californian waters.

SCMI plans to develop a new system aimed at facilitating data collection and entry from research cruises. This data set will include all the necessary information required to start an SCMI database where professors and students can easily access and manipulate data collected by all cruises. SCMI also plans on having surveys for students and faculty researchers to share how their experiences went to see how we can further improve these educational demonstrations.

Research Activities

OSI and SCMI have 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.

Project Updates

SCMI's Assisted Research Projects Include:
- Port of Los Angeles Water Quality Monitoring (POLA)
  - Real-Time Water Quality Monitoring Program
  - Monthly Water Quality Monitoring aboard R/V Yellowfin
- Biological Surveys of Los Angeles and Long Beach Harbors
- Barred Sand Bass Study - Dr. Larry Allen, CSUN
- Rocky Reef Ecology Studies - Vantuna Research Group
- The Bay Foundation Kelp Forest Restoration
- The Bay Foundation Abalone Recovery
- NOAA Ship of Opportunity Program
- San Pedro Ocean Time-Series SPOT
- Salt Pond Project - Dr. Christine Whitcraft, CSULB
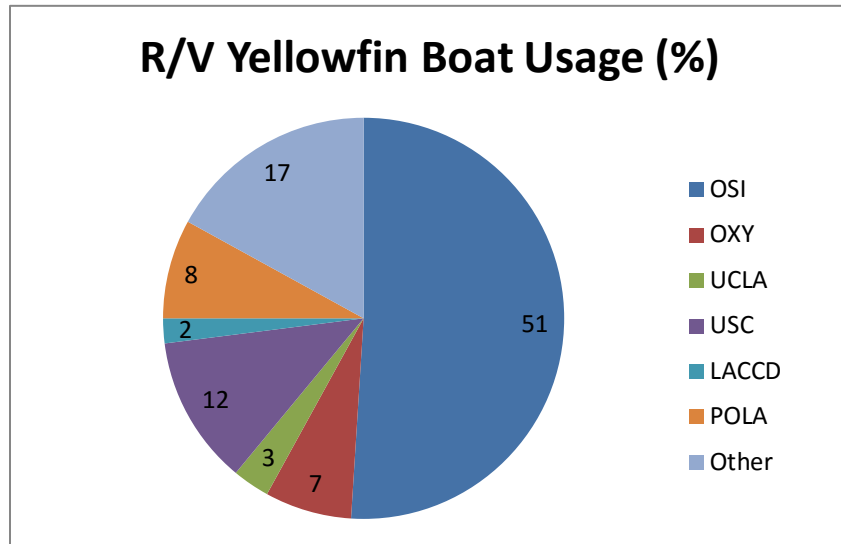- Temperature Influence on Ecology and Distribution of Intertidal Species - Dr. Sarah Gilman, Claremont Colleges

Vessel Use

R/V Yellowfin Usage by Institutions

This year, the R/V Yellowfin logged approximately 1117 hours of vessel use. The trips consisted of a combination of class laboratories, graduate and university research, and contracted research. Although we had significantly more students participate in trips this year, we conducted nearly the same number of hours of vessel use, as well as number of cruises. Our goal is to continue increasing hours of vessel use and the total number of cruises for the 2016 – 2017 fiscal year, and we expect to meet that goal.

Institute Name	Students	Faculty and Staff	Hours of Vessel Use	# of Cruises
Ocean Studies Institute (OSI)	1742	31	565	89
Occidental College	176	4	81	15
University of California Los Angeles	26	1	31	3
University of Southern California	126	3	137	13
LA Community College District	130	3	24	5
POLA Water Quality Monitoring	0	0	91	12
Other universities, colleges, & cruises	289	9	188	13

Grand Total	**2489**	**51**	**1117**	**150**

R/V Yellowfin Boat Usage (%)

Legend: OSI, OXY, UCLA, USC, LACCD, POLA, Other

Values: 51, 7, 3, 12, 2, 8, 17

5-year strategic plan

This year, the OSI Board of Governors has completed a 5-year strategic plan that will be presented to the OSI faculty and discussed at a Spring 2017 Research Symposium. This new plan describes how OSI will move forward and prepare for our move to the new AltaSea facility.

Southern California Marine Institute Members

Southern California Marine Institute Staff 2015-2016

Dr. Daniel Pondella
Director

Adriana Stowell
Fiscal & Adminstrative Coordinator

Carrie Wolfe
Research & Education & Operations Coordinator

Dennis Dunn
Captian R/V Yellowfin

Brian Tufts	Jim Cvitanovich	Darrell Montague
Facilities Coordinator Aquarist	*OSI Dive Safety Officer*	*OSI Dive/Boat Safety Officer*
Denis Mahaffy	Bob Adams	Joel Ingram
Vessel Support Technician	*Demonstration Technician*	*Relief Captain & Dockside Coordinator*
Echelle Burns	Erin Crowley	Ben Grime
Demonstration & Administrative Assistant	*Facilities & Administrative Assistant*	*Demonstration Technician*

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