

The Southern California Marine Institute

Annual Report Fiscal Year 2014-2015



820 S. Seaside Ave, Terminal Island, CA 90731

(310)-519-3172 www.scmi.net

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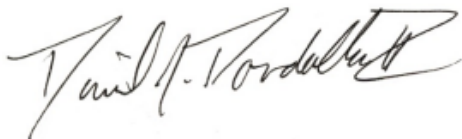
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Mission

The Southern California Marine Institute consortium represents a strategic alliance of 12 major universities in southern California, nine universities from the California State University System representing the Ocean Studies Institute (Channel Islands, Dominguez Hills, Fullerton, Long Beach, Los Angeles, Northridge, Pomona, San Bernardino and San Marcos) and the combined marine resources of the University of Southern California, Wrigley Institute for Environmental Studies, University California Los Angeles, and Occidental College. The Southern California Marine Institute is committed to providing marine expertise and hands-on experience to students at all levels, to achieve the highest and most efficacious level of research, to monitor the marine environment and to increase public awareness.

Director's Message

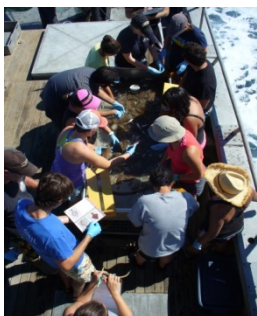
Not many people who live in Los Angeles and Long Beach can say they work on an island, but that's what we do at SCMI. As I begin my fourth year as director, I'm happy to report on all of the positive energy and progress that SCMI is making. Literally thousands of students and researchers are moving through our facility every month, highlighting the importance and necessity of our marine lab. As I have mentioned in our newsletters and previous annual reports, the overall use of the facility has increased dramatically. The new seawater system has provided the previous support functions, but has also attracted new research, opportunities and partnerships. So, while the wharf is completely full, we are now seeing the remainder of the facility being occupied. We almost have no interior space left and we are continuing to update and improve the facility. New programs are beginning, current programs are expanding, and the number of SCMI members is increasing. All this positive progress runs parallel to the incredible strides that AltaSea is making. So while we may have to leave the island in 2019, we will be fully prepared to go.



Dan Pondella

Introduction

The Southern California Marine Institute (SCMI) has had a very productive year. SCMI consortium continues to attract new institutions interested in joining. The Bay Foundation and The Los Angeles Community College District will be joining the consortium next year and we expect more will follow. SCMI's docks are full to capacity and the building research labs are priming for use. SCMI is excited about the opportunity to collaborate and service more institutions in southern California. SCMI has continued our outreach efforts focusing on K-12 education and community awareness by offering marine science demonstrations on our docks for K-12 students and attending community outreach events. The AltaSea project is moving forward, fundraising and working on design plans for SCMI's new home in Berth 57. In collaboration with AltaSea and the Cabrillo Marine Aquarium SCMI has participated in the Discovery Lecture Series. The Series features lectures from many of the consortiums faculty members' current research. The facility is ever improving with the expansion of our seawater system to accommodate researchers and public outreach with our new touch tank. SCMI's new website (www.scmi.net) has been up and running for a year and provides easy access to SCMI's many programs. SCMI continues to fulfill our mission in the areas of research and education and has seen a growth in applications to both the CSU Marine Biology Semester on Catalina and the Ocean Studies Institute (OSI) AAUS Research Dive class. OSI use of the R/V Yellowfin for undergraduate and graduate courses have increase allowing more CSU students to experience marine science research techniques first hand. SCMI assisted a wide variety of research project form both member and non-member institutions that utilized all aspects of the facility.



AltaSea Project

Planning Updates



Design plans for the AltaSea project, a 35-acre marine research campus at the Port of Los Angeles, have continued to move forward at lightning speed. The year started off with “A Day at AltaSea” event hosted by AltaSea which introduced the public to the future plans for the world class marine research facility. Phase 1 of the project which includes Berth 57, the proposed new location for SCMI, is expected to be completed in 2019. SCMI members have been meeting regularly with the design team Gensler to design a state-of-the-art research and education facility that will meet all of the consortium member’s needs. The SCMI boards are enthusiastic about the proposed world class marine research center and the many opportunities this space will bring to SCMI.



Phase 1: Berth 57 SCMI new location and Berth 60 Interpretive Center.

Outreach Programs

Outreach and Public Education Events

SCMI is always looking for outreach and public education events to contribute to. This year, SCMI attended both the LA County Science Fair and Cabrillo's annual Earth Day events with touch tanks, posters, specimens, and plenty of information to share. At the LA County Science Fair, SCMI staff judged the elementary students projects and ran an information booth. Both of these events presented a great opportunity to work with the younger generation interested in marine sciences.

In addition, SCMI has partnered with the Los Angeles Community College District who received a \$15 million grant to put towards programs that train students for jobs in high demand fields. SCMI will soon become one of the facilities community college students from 36 different cities use to build their resume and learn a wide range of marine science skills to reach their career goals.

SCMI has continued its collaboration with Mountain and Sea Educational Adventures (MSA). MSA main vessel the Wilderness Explorer is docked at SCMI and makes regular trips to and from Catalina Island to MSA's Science camps. The vessel transports around 1000 students each month during the school year. SCMI has also continued to conduct dock side water quality demonstrations for K-12 students, as well as adults, waiting to board their vessel.

A continuous outreach program at SCMI is our volunteer/internship program for high school and college students. We encourage students to apply for our program to gain experience working at a marine institute and learn essential skills for future career goals.



Educational Activities

CSU Marine Biology Semester on Catalina Island

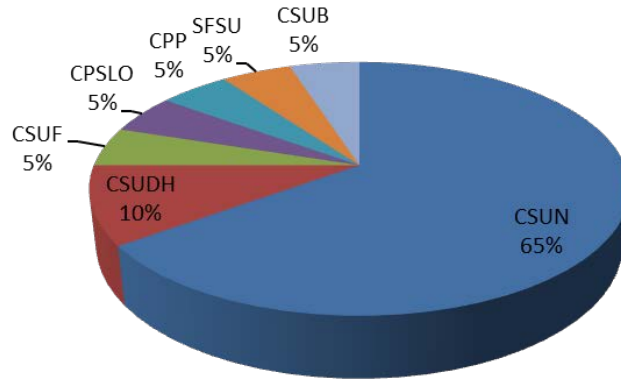
The CSU Marine Biology Semester on Catalina continues to grow and benefit CSU students each Fall. The semester is a rewarding opportunity for CSU students to learn hands on marine biology and guide them to a career in marine science. The Fall 2014 Marine Biology Semester was a great success with a total of 20 students from seven different CSU's attending. The semester was taught by professors: Dr. Larry Allen, Dr. Steven Dudgeon, Dr. Mark Steele, and Dr. Peter Edmunds, all from CSUN. We have received positive feedback from the participating students and are excited to see the program grow to more CSU campuses. Students claim the research experience at the end of the semester was extremely valuable and many students were motivated to pursue graduate school and other higher education goals because of their experiences at Catalina.



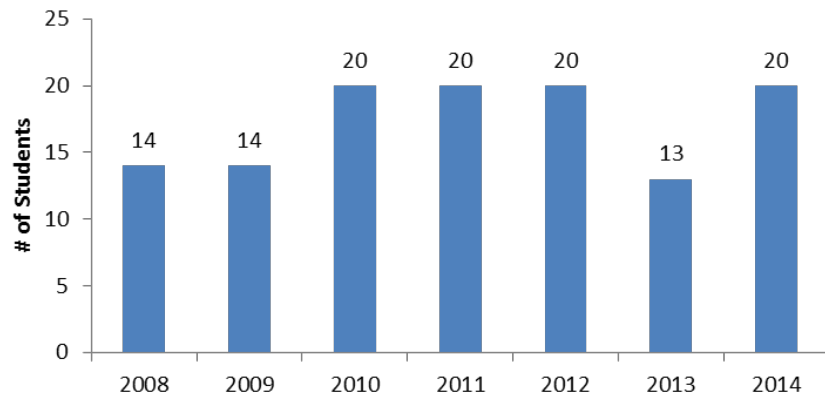
CSU Marine Biology Semester on Catalina Fall 2014

University	# Students	Professors	Courses
CSUN	13	Dr. Steve Dudgeon	Biol 421/L - Marine Biology (4 units)
CSUDH	2	Dr. Larry Allen	Biol 531/L - Ecology of Marine Fishes (4 units)
CSUF	1	Dr. Mark Steele	Biol 531/L - Ecology of Marine Fishes (4 units)
CPSLO	1	Dr. Peter Edmunds	Biol 313/L - Marine Invertebrate Zoology
CPP	1		Biol 490 - Directed Undergraduate Research
SFSU	1		
CSUB	1		
Total # Students	20		
Total # Schools	7		

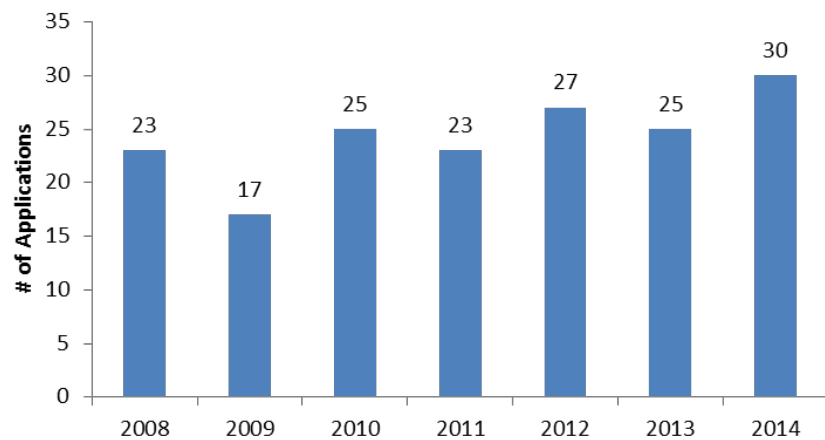
CSU Marine Biology Semester % Students per University Fall 2014



CSU Marine Biology Semester Student Participants

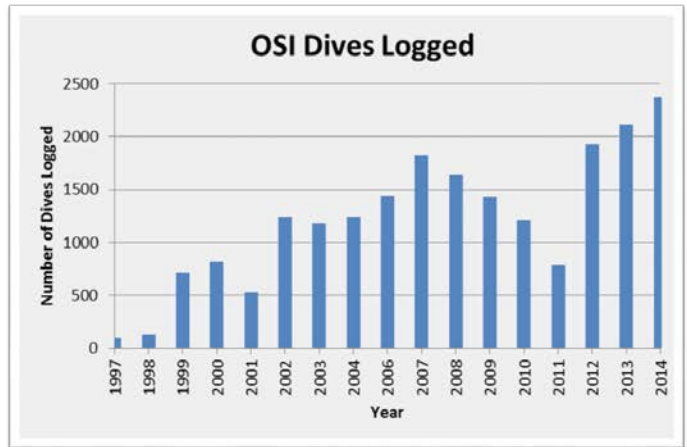
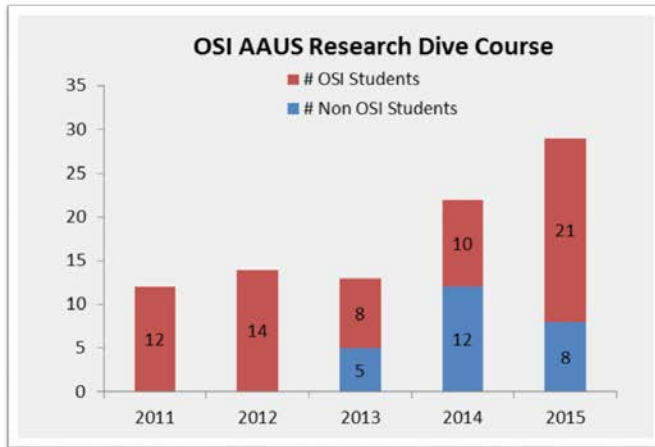


CSU Marine Biology Semester Applications



OSI AAUS Research Dive Program

The OSI AAUS Research Dive Program has seen great increases in interest and participation. SCMI's updated dive locker makes diving at SCMI easier than ever. The winter 2015 OSI AAUS Research Dive course had a total of 11 participants, 6 students from OSI, 3 students from Occidental College, and 2 from other agencies. The summer 2015 course has a total of 18 participants, 15 students from OSI and 3 non-OSI students. The course was taught by OSI Dive Safety Officer Jim Cvitanovich with assistance from SCMI staff. There were a total of 2374 logged dives (a 19% increase from the previous year) for a total of 101,382 minutes (an 11% increase from the previous year).



Demonstration R/V Yellowfin Cruises

University and College demonstrational R/V Yellowfin cruises have seen an increase in the last year. With the help of our demonstration technicians, many classes learned sampling techniques used on the Yellowfin including Van Veen grabs, CTD, plankton tows, and otter trawls. Students enjoy being on the water and learning hands on marine research skills.

R/V yellowfin cruise highlights include Minke whale sightings off Catalina Island, late night mid-water tows to see bioluminescence organisms, and Los Angeles harbor otter trawls to view local bottom dwelling fish species. There is no better way to learn marine science concepts then in the field and the R/V Yellowfin has helped many students visualize their future career goals.



Research Activities

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.

Project Updates

Ports of Los Angeles Water Monitoring Project

The Port of Los Angeles Fish Tracking Study conducted by Dr. Chris Lowe (CSULB) and his graduate students has come to a conclusion this year. The study completed its mission to understand fish movements relating to contamination and other environmental variables within the Port of Los Angeles.

Ports of Los Angeles Water Monitoring Project

SCMI has continued to conduct the Port of Los Angeles Real time Water Monitoring Project. SCMI staff have made weekly trips to the two multi-parameter sondes in the Port to maintain and monitor the equipment. Water quality data such as temperature, salinity, pH, dissolved oxygen, chlorophyll, and turbidity are displayed on the [SCMI and Port of Los Angeles Real Time Monitoring website](#).

Ports of Los Angeles Food Web Study

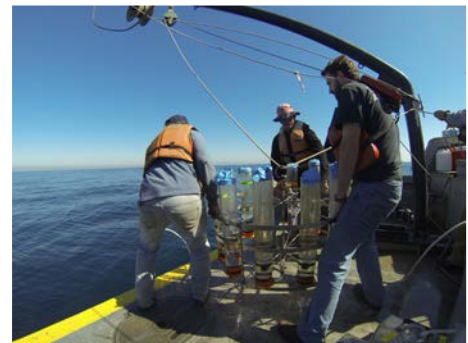
A new project SCMI assisted with this year was the Port of Los Angeles Food Web Study analyzing otoliths and scales to age fish caught in the harbor. SCMI staff processed over a 100 fish otoliths and scales and analyzed growth rings.

NOAA Ship of Opportunity Program (SOOP)

SCMI's continues to collaborate with the NOAA SOOP program under the coordination of Carrie Wolfe SCMI's Research and Education Coordinator. The SOOP program involves cooperation between commercial ships and scientific agencies to operate and deploy oceanographic equipment along the commercial ship route. Carrie Wolfe continues to coordinate with commercial ship captains and crew and spends over 6 weeks a year on ship rides across the Pacific.

Selected SCMI Assisted Research

- Port of Los Angeles Water Quality Monitoring
 - Real-Time Water Quality Monitoring Program
 - Monthly Water Quality Monitoring aboard R/V Yellowfin
- Port of Los Angeles Fish Tracking Study - Dr. Chris Lowe, CSULB
- Biological Surveys of Los Angeles and Long Beach Harbors
- Barred Sand Bass Study - Dr. Larry Allen, CSUN
- Rocky Reef Ecology Studies - Vantuna Research Group
- Chevron Receiving Water Monitoring and Reporting Program – Vantuna Research Group
- The Bay Foundation Kelp Forest Restoration
- NOAA Ship of Opportunity Program
- Ecology of Harmful Algal Blooms ECOHAB
- San Pedro Ocean Time Series SPOT
- Up.R.I.S.E.E. Time-Series Investigation
- Salt Pond Project - Dr. Christine Whitcraft, CSULB
- Marine Wood Borer Survey - Dr. Don Reish, CSULB
- Research to Help Fishermen Add Value to Local Catches - Dr. Ana Pitchon, CSUDH
- Marine Ecophysiology and Reproduction - Dr. Jacqueline L. Padilla-Gamino, CSUDH
- Temperature Influence on Ecology and Distribution of Intertidal Species - Dr. Sarah Gilman, Claremont Colleges



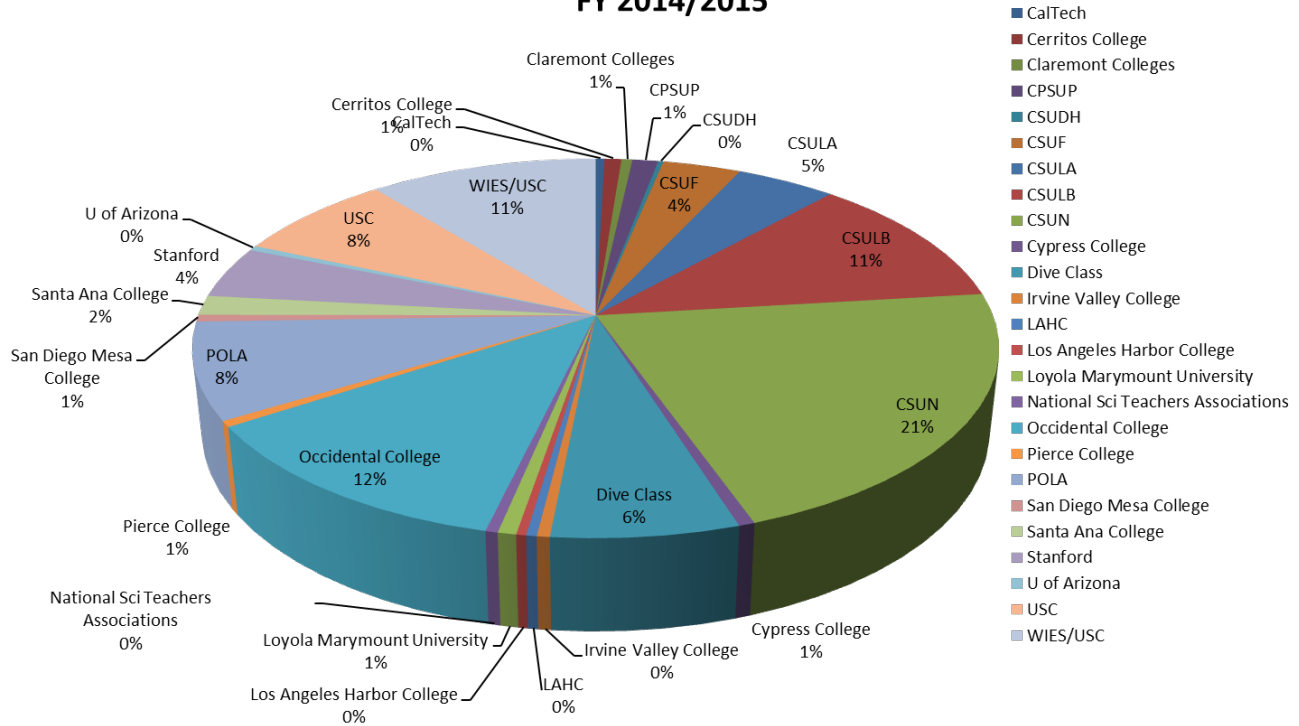
Vessel Use

R/V Yellowfin Usage by Institutions

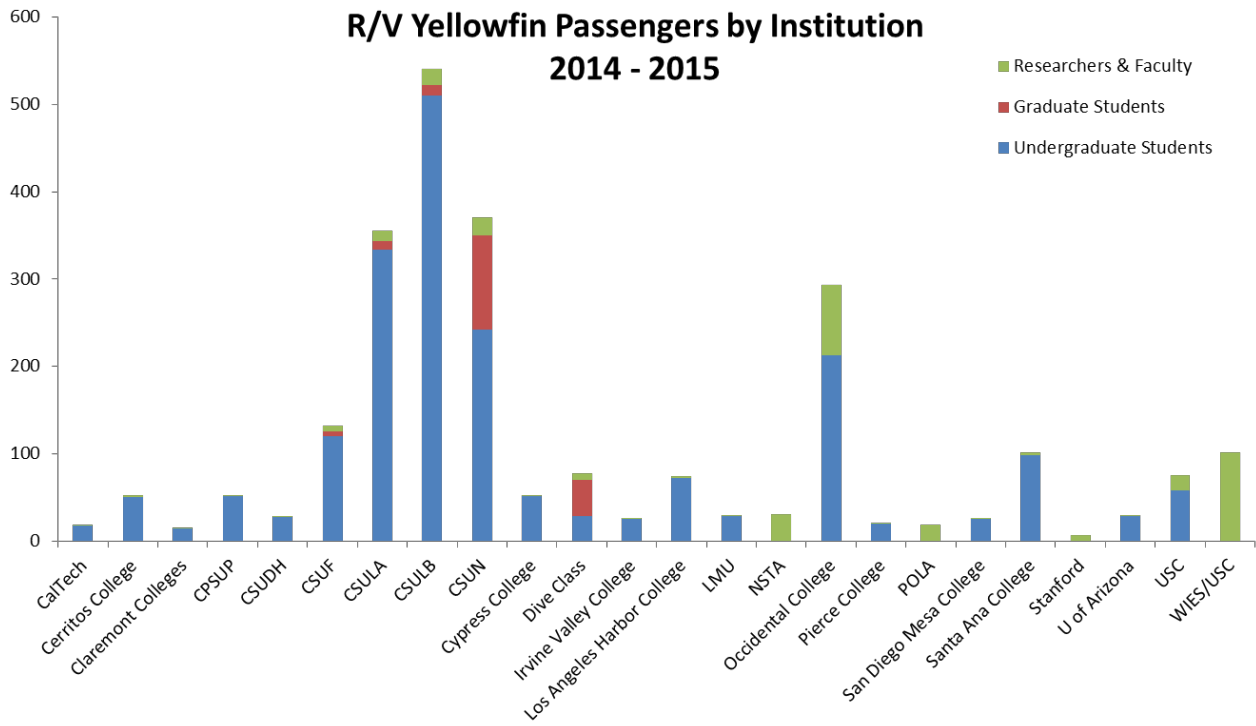
This year, the R/V Yellowfin completed approximately 1194 hours of vessel use. The trips were a combination of class laboratories, graduate and university research, and contracted research. SCMI hopes to continue increasing hours of vessel use and the total number of cruises for the 2015 – 2016 fiscal year.

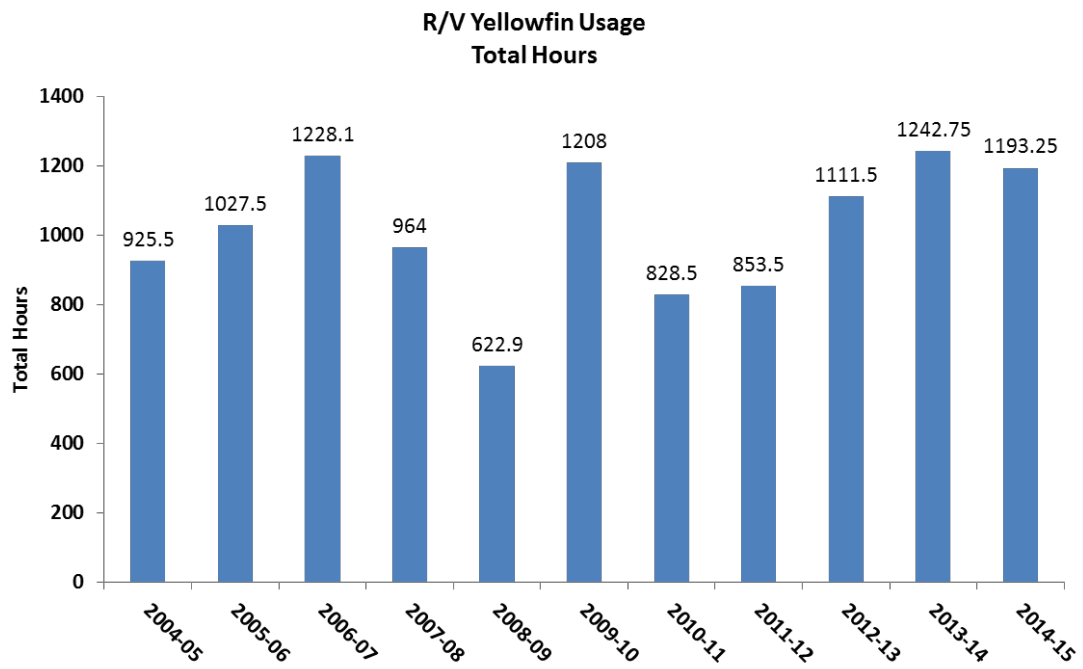
R/V Yellowfin Usage 2014-2015					
Institute Name	Undergraduate Students	Graduate Students	Researchers & Faculty	Hours of Vessel Use	# of Cruises
Cal Tech	18		1	5	1
Cerritos College	50		2	9.5	2
Claremont Colleges	14		1	6.25	1
CPSUP	51		2	15.75	2
CSUDH	27		1	3	1
CSUF	120	5	7	44.25	7
CSULA	334	9	12	56.25	12
CSULB	510	12	19	137	29
CSUN	242	108	21	256.5	24
Cypress College	51		2	6.5	2
OSI Dive Class	28	42	8	76.25	5
Irvine Valley College	25		1	5.25	1
Los Angeles Harbor College	72		2	8.25	2
Loyola Marymount University	28		2	7.5	2
Nat. Sci. Teachers Associations			31	5	1
Occidental College	213		80	143.75	23
Pierce College	20		1	6	1
POLA			19	98	12
San Diego Mesa College	25		1	7	1
Santa Ana College	98		4	20	4
Stanford			7	53	1
U of Arizona	28		2	5	1
USC	58		17	90.5	5
WIES/USC			102	129.25	13
Grand Total	2012	176	345	1193.25	153

R/V Yellowfin Vessel Usage (Hours) FY 2014/2015



R/V Yellowfin Passengers by Institution 2014 - 2015





Southern California Marine Institute Members

Southern California Marine Institute Staff 2014-2015

<p>Dr. Daniel Pondella <i>Director</i></p>	<p>Adriana Stowell <i>Fiscal & Administrative Coordinator</i></p>	<p>Carrie Wolfe <i>Research and Education & Operations Coordinator</i></p>
<p>Brian Tufts <i>Facilities Coordinator Aquarist</i></p>	<p>Dennis Dunn <i>Captian R/V Yellowfin</i></p>	<p>Jim Cvitanovich <i>OSI Dive Safety Officer</i></p>
<p>Denis Mahaffy <i>Vessel Support Technician</i></p>	<p>Bob Adams <i>Demonstration Technician</i></p>	<p>Joel Ingram <i>Relief Captain & Dockside Coordinator</i></p>
<p>Emily Meese <i>Demonstration & Administrative Assistant</i></p>		<p>Erin Crowley <i>Facilities & Administrative Assistant</i></p>

Southern California Marine Institute Board of Directors 2014-2015

President: Dr. Roberta Marinelli
Vice President: Dr. Laura Kingsford
Secretary: Dr. Doug Hammond

<u>USC</u>	<u>OSI</u>	<u>Occidental</u>	<u>UCLA</u>
Dr. Roberta Marinelli	Dr. Jerry Stinner	Dr. Daniel Pondella	Dr. Mark Gold
Dr. Doug Hammond	Dr. Laura Kingsford		
Dr. James Moffett (Alternate)	Dr. Chris Lowe		
	Dr. Steve Murray		

Ocean Studies Institute Board of Governors 2014-2015

Chairperson: Dr. Chris Lowe
Vice Chairperson: Dr. Kathy Dickson
Member at Large: Dr. Ana Pitchon
Director-Coordinator: Dr. Daniel J. Pondella II

CSU Dominguez Hills

Academic: Dr. Ana Pitchon
Administrative: Dr. Rob Hay

CSU Fullerton

Academic: Dr. Kathy Dickson
Administrative: Dr. David Bowman
Chancellor's Office Liaison: Dr.
Steve Murray

CSU Long Beach

Academic: Dr. Chris Lowe
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CSU Los Angeles

Academic: Dr. Elizabeth Torres
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Academic: Dr. Larry Allen
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Academic: Dr. Jayson Smith
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CSU Channel Islands

Academic: Dr. Sean Anderson
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CSU San Marcos

Academic: Dr. Jackie Trischman
Administrative: Dr. P. Wesley
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Consortium Members

