



Annual Report 2020–2021

Marine Science Institute

UC SANTA BARBARA

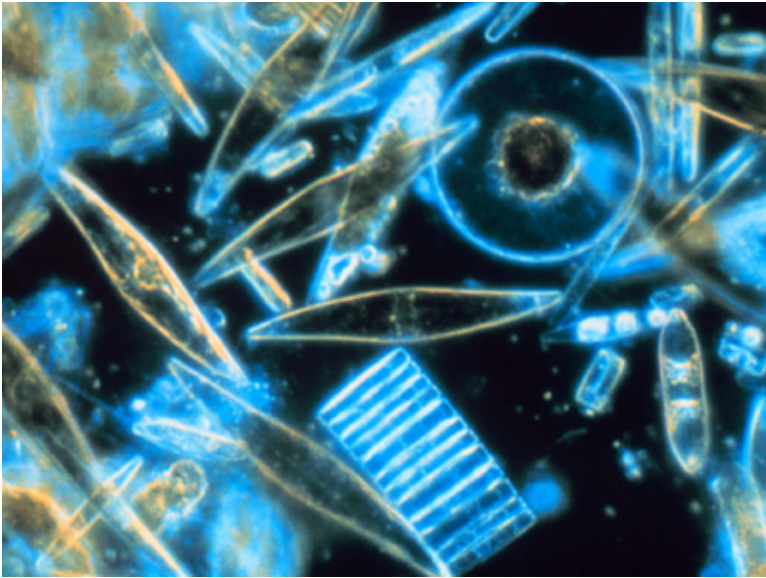
Marine Science Institute UC **Santa Barbara**

Annual Report 2020–2021



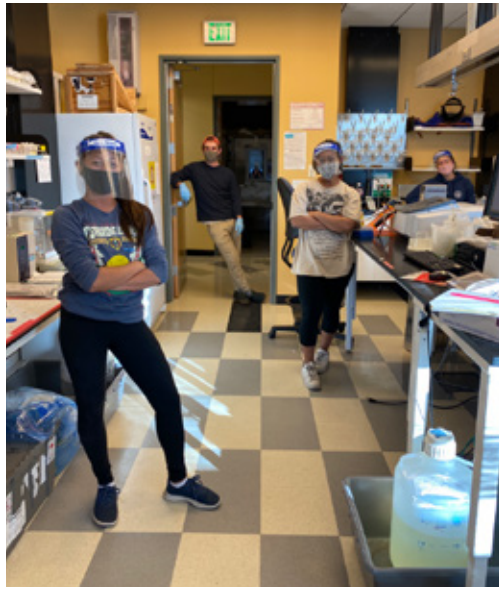
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Mission Statement

The Marine Science Institute at the University of California, Santa Barbara, is committed to fostering innovative and significant research, to promoting effective stewardship, and to sharing exciting discoveries of the world's oceans.



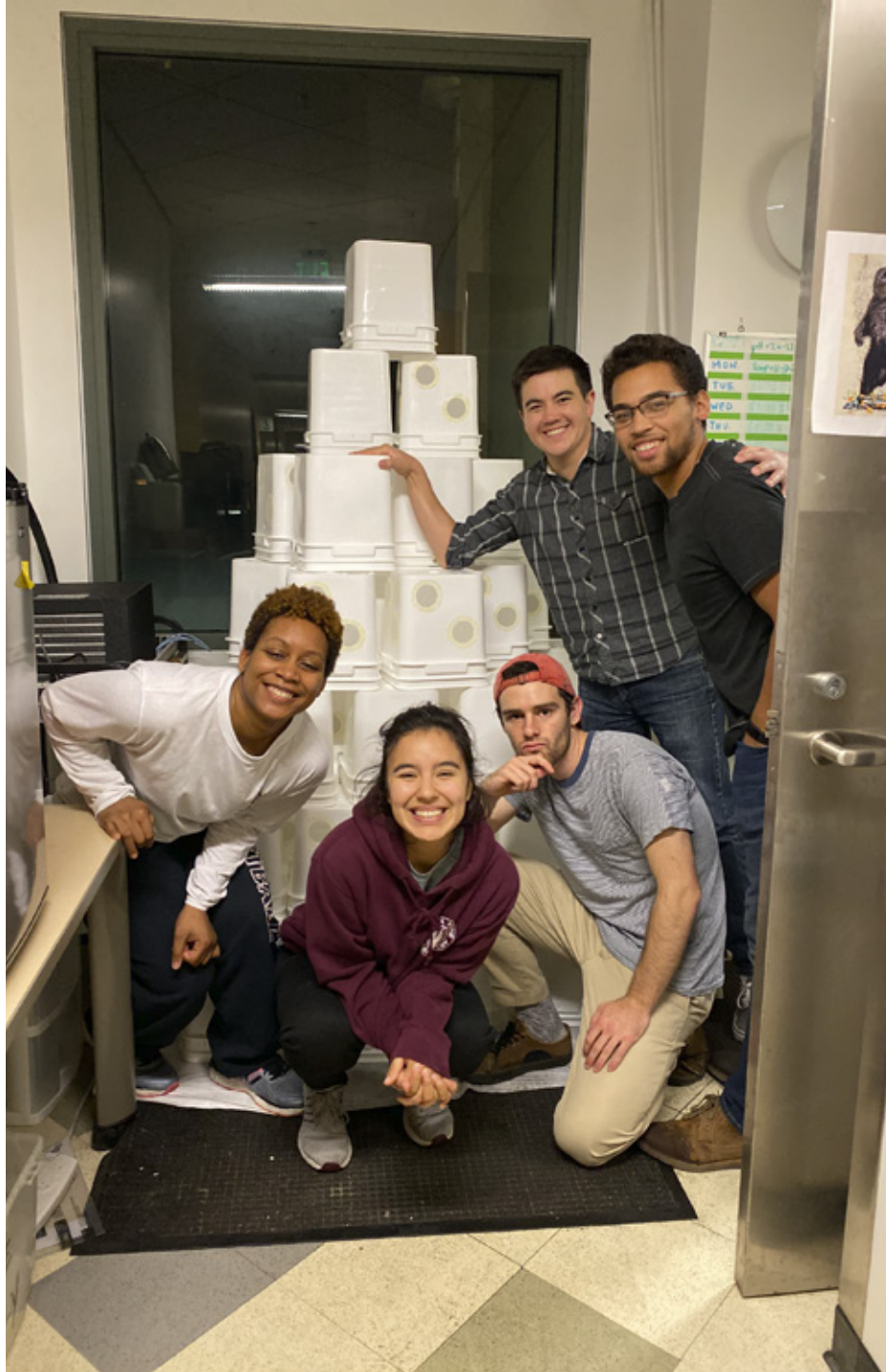
Marine heatwave experiment, Hofmann Lab, MSI, January 2021.

"We were so desperate even the PI had to work..."



From the Director

The modest beginning of MSI as a small research unit focused on better scientific understanding of the coastal marine environment has grown today to have a global reach and stellar reputation for cutting-edge research in broad areas of marine science.



Overview

The Marine Science Institute (MSI), which recently celebrated its 50th anniversary, was born as a campus response to the 1969 Santa Barbara oil spill, a local maritime accident that spawned the modern environmental movement. The modest beginning of MSI as a small research unit focused on better scientific understanding of the coastal marine environment has grown today to have a global reach and stellar reputation for cutting-edge research in broad areas of marine science. The growth and sustained success of MSI reflects the synergy created when world-class regular and research faculty are well supported by highly dedicated professionals in a culture that fosters cross-disciplinary collaboration. The institute brings together marine researchers from across the UCSB campus and supports both multi-investigator collaborative projects and individual research efforts. The scientific membership at MSI consists of both ladder rank faculty and professional researchers. In 2020-2021 MSI membership included 28 ladder rank faculty and 33 professional researchers/project scientists over 336 additional participants distributed across postdoctoral scholars, specialists, graduate students, undergraduates and technical research staff. Beyond research, MSI's Research Experience and Education Facility (REEF) educates UCSB undergraduates and the general public about MSI science.

Housed in the Marine Science Research Building (MSRB) on the UCSB campus, MSI support services and research laboratories, along with seawater workroom facilities that support experimental work on marine organisms. Support services include the MSI administrative staff that support pre- and post- award activities, the MSI analytical facility that provides expertise in the chemical analysis of environmental samples from the marine environment, the Ocean O'Graphics unit that provides web and graphics services, and the MSI information technology group who support scientific computing. Research space is allocated to individual ladder rank faculty and professional researchers and to collaborative research groups. MSI professional researchers are also housed within departmental spaces, at Devereux and off-campus leased space. The REEF, the MSI educational and outreach facility, is located at Campus Point.

MSI staff have had another busy year. In 2020-2021 MSI submitted 141 proposals, 97 new awards, and administered and managed the activity of 317 projects. Post award activities include accounting, personnel management, procurement and travel. Beyond pre- and post- award activities MSI staff are also responsible for MSRB management and maintenance, management and maintenance of common use scientific equipment, laboratory safety compliance, seawater system maintenance, room scheduling, serving as the

interface between the Channel Island Marine Sanctuary offices and campus facilities and management offices. The MSI administrative staff are recognized as highly innovative with a history of bringing new systems to campus (GUS, Cayuse, Coupa, IT Works) that increase efficiencies quickly and at modest cost.

As another major research support resource, the MSRB is also one of the few research buildings at UCSB plumbed into the campus seawater system. Researchers have access to over 1,600 ft² of seawater workroom space distributed across six seawater laboratories. An additional three walk-in environmental chambers provide access to temperature-controlled conditions simulating environments from the tropics to the poles. Other common spaces provide access to common use scientific equipment including autoclaves, freeze dryers, centrifuges and refrigerator/freezer space. These common-use facilities serve the needs of individual research projects and collaborative efforts on an as needed basis.

The MSI Analytical Laboratory provides investigators with analytical services for environmental samples from the marine environment. The purpose of the facility is to provide investigators access to instrumentation and analyses that would be too costly or too inefficient for individual PIs to maintain. In normal years the laboratory also serves a strong educational function supporting research of graduate students and postdoctoral scholars, the laboratory staff assist undergraduates conducting honors research and independent study projects. The laboratory routinely employs undergraduates to assist in sample preparation and in routine analyses providing vital real-world work experience. Moreover, laboratory personnel guide investigators in the development of new analytical methods to catalyze new avenues of research and to support new extramural proposals.

Effective Sept. 22, 2021, the MSI Information Technology group has merged with IT staff from Geography, ISBER and ERI to form the General Research IT group (GRIT). This new combined team will offer more depth and breadth, leveraging campus expertise in the main areas of IT support. The goal of this merger from the MSI perspective, is to expand the breadth of research computing support for MSI researchers. Overall, the merger strives to support the research missions of the institutes more effectively and efficiently, resulting in better support for Research at UCSB. The types of services offered by GRIT can be roughly classified as infrastructure, user, or computational support. MSI's greatest needs are in infrastructure, which mostly consists of the need to migrate from the beyond-end-of-life hardware to newer infrastructure. To address this issue, GRIT system administrators are in the process of migrating MSI data, websites and other systems, or otherwise incorporating them into existing infrastructure. GRIT also leverages pre-existing relationships with other campus experts. For example, a collaboration with IT staff at the Bren School has resulted in

substantial improvements to the performance of the MSRB Auditorium audio/visual (A/V) system, with further improvements in the planning/procurement stage. Bren IT staff have substantial experience with building and managing A/V systems as a result of their mission to support Bren School instruction. Lastly, the GRIT group was formed through a Memorandum of Understanding (MOU) with the other campus institutions. The Directors and MSOs of the units, and the Director of GRIT will meet periodically to evaluate progress and address any concerns -- ensuring that GRIT is not only supporting MSI researchers, but also providing IT services that open up new opportunities for research at MSI.

MSI's Educational and Outreach Program brings our discoveries to K-12 students, the general public and to UCSB students. A recent goal has been to engage more UCSB undergraduates. These efforts have been wildly successful. In an average year the REEF now serves nearly 4,000 UCSB undergraduates in activities ranging from laboratory classes to research training and other activities spanning six campus administrative divisions along with 18,000 visits by K-12 students and the general public. As described below the REEF had to reinvent itself during the pandemic.

MSI is led by the director who is advised by the business services officer and a deputy director. The MSI Advisory Committee, consisting of faculty and researchers from each of the participating campus departments and professional schools, serves an oversight role and reports on MSI needs and activities to the vice chancellor for research. Local governance is handled by the MSI Resources Committee that reviews requests for office and laboratory space with the MSRB and makes recommendations to the director. The MSI Computing Committee assesses the computer infrastructure necessary to support MSI research and makes policy and purchase recommendations to the director.

At the time of the last annual report, Carolyn Sheehan had recently joined MSI as the new business services officer, bringing her extensive experience from UC San Diego. Carolyn has made a very successful transition to UCSB and MSI. In this last review period she was instrumental in moving MSI staff into "work from home" mode in March 2020, in assisting the MSI Interim Director in administering the MSRB during the campus closure and in general, keeping the lights on for MSI as everyone navigated new situations at work and in their research programs. In January 2021, Professor Gretchen Hofmann, took on the role as the Interim Director of MSI. Prof. Hofmann is a marine ecophysiologicalist who studies the impacts of climate change processes (e.g., marine heatwaves and ocean acidification) on marine organisms. She joins the MSI in their commitment to maintaining a strong research unit, and in supporting our research community. As of this Fall (2021), a search for a permanent Director has been approved by the EVC and the search process is expected to begin in early 2022.



Executive Summary

MSI has had another highly successful year of scientific discovery with the institute PI's conducting nearly 300 research projects ranging from efforts to develop new policies for ocean management to working on industry-science collaborations. Highlighted below is a subset of projects that have recently been added to the MSI portfolio, but obviously there are many others that represent the level of exciting work being done at UCSB's MSI.

- Professor **Debora Iglesias-Rodriguez**, an oceanographer at UCSB, has started a new research program on ocean alkalinity enhancement (OAE), an experimental method to remove carbon dioxide from seawater. Funded by the ClimateWorks Foundation, the overarching goal is this climate intervention strategy is designed to restore ecosystem services impacted by ocean acidification. Prof. Iglesias-Rodriguez's work represents an important new step in marine science, that of taking action and using basic science to explore intervention strategies in the climate crisis that has high impact marine ecosystems.
- In this same vein of climate action, **Professor Deron Burkepile** and his lab are funded by the Zegar Family Foundation to work on local actions that can help ameliorate the effects of ocean warming on corals. Overall, this research emphasizes the role that MSI researchers are taking in seeking paths forward here; here, where significant interventions and conservation strategies can be implemented at the local scale and reduce the impacts of warming on coral reef ecosystems.
- Professor **Douglas McCauley** continues to lead the Benioff Ocean Initiative (BOI). The BOI seeks to understand how science can both inform and solve problems affecting our oceans. Last year the BOI launched a new large initiative focused on ocean plastics. This particular effort seeks to design and deploy a pilot intervention strategy that both physically captures plastic waste in rivers before it reaches the ocean, and catalyzes policy-based, infrastructural, and/or societal change to reduce plastic waste in put rivers. BOI continues as a major entity in MSI, moving conservation and solution science forward.
- Professor **Gretchen Hofmann**, along with co-PIs Carol Blanchette, Douglas McCauley, Malaphone Phommasa and Hillary Young received an NSF award to support STEM education at UCSB. Here, the program FUERTE (Field-based Undergraduate Engagement through Research, Teaching and Education) is designed to bring under-represented students into research areas that involve field work, such as marine science. Funded by the Improving Undergraduate STEM Education: Hispanic-Serving Institutions (HSI Program) at NSF, the \$5 million 5-year award is the first step in building MSI as a platform for increasing diversity and inclusion in marine science.
- Most people familiar with MSI know that the institute is the intellectual home of two of the nation's long-term ecological research programs: The Santa Barbara Coastal (SBC) LTER that focuses on the kelp forest ecosystem, and the Moorea Coral Reef (MCR) LTER that studies the coral ecosystems of French Polynesia. In 2020, the SBC LTER underwent a leadership transitions with senior Researcher and marine ecologist Robert Miller taking on the lead PI role. A similar transition is expected in the future for the MCR LTER where leadership will transition

from Professors Russell Schmitt and Sally Holbrook to Professor Deron Burkepile. LTERs are designed to test ecological theory on timescales not approachable in short-term studies and to evaluate how ecological communities respond to climate perturbations. These two studies bring together over 100 investigators from UCSB and elsewhere in a highly interdisciplinary effort to advance our understanding of these ecosystems.

- In the area of oceanography, Professors Santoro, Carlson and Brzezinski each have separate grants to participate in NASA's EXport Processes in the Ocean from Remote Sensing (EXPORTS) field study. This \$72M project is led by UCSB by Professor David Siegel with additional participation by ERI Professional Researcher, Norman Nelson. EXPORTS is a large-scale NASA-led field campaign that will provide critical information for quantifying the export and fate of upper ocean net primary production (NPP) using satellite observations and state of the art ocean technologies. Over 30 principal investigators from around the nation are involved with UCSB being very well represented.

COVID-19 IMPACTS

This summary covers the period of July 1, 2020 – June 30, 2021 and includes the period of more limited research on campus to a broader re-opening or research in summer 2021. Together with the MSRB Building Committee, the MSO and the Interim Director worked to quickly bring MSI researchers back onto campus and into their labs. Overall, MSI was able to maintain all essential research, including important fieldwork done for various projects. At present, we are still analyzing the overall impact of the research shutdown, but a few items are emerging. First, there was definitely an operational impact on MSI with regard to the shutdown. As PI's maintained salary support from federal grants for students, post-doctoral scholars and technicians during the shutdown, it is not clear that productivity on existing grants was lost. Second, there were significant slowdown in progress for early career researchers who were unable to continue their projects at a pace predicted pre-pandemic. This latter example does impact MSI as PIs need to seek additional funding to support personnel on their projects in order to complete them. Third, MSI's Analytical Laboratory was especially hard hit by the research closure as all income to this recharge facility ceased while salaries for analytical lab members continued to be paid through the recharge account following university policy. The lab manager filed for, and received, an exception to analyze critical perishable samples during the closure. Fortunately, the lab had been sufficiently productive through June 30, 2020 with the laboratory's finances remain in the black. Unfortunately, due to field research coming to a halt for almost 6 months into FY 2021, the Analytical Lab closed June 30th, 2021 with a loss and is building back business for 2021-2022. Anticipated success and high levels of productivity have resumption close to

normal levels of research activity. However, it's clear that the planned use of the NUD for equipment repair and maintenance will be compromised in the near future. Lastly, MSI's education and outreach facility, the REEF, was significantly impacted by the pandemic and remained closed to on-site, in-person activities. However, the REEF's director, Scott Simon, reinvented the REEF creating the virtual REEF online. With assistance from the undergraduate docents, and with all participants working remotely, he turned the REEF into a 100% virtual experience. For example, they have produced over 100 educational videos that run on the virtual REEF YouTube Channel. This is an impressive success story and it is ongoing. We also used this time to perform some renovations and improvements of the REEF facility and look forward to hosting some in-person tours for UCSB undergraduates during the regular academic year (2021-2022).

The MSI administrative staff adjusted to remote work very well. Most worked remotely although some essential services such as processing of checks and aspects of compliance with human resources paperwork required limited on-campus work for a select few staff members. During the shutdown, MSI staff were encouraged to take home their office desks, chairs, computers and desktop monitors and other accessories to improve home ergonomics and productivity. Thus far the staff have adapted well and they are meeting all obligations. As of July 2021, MSI moved to a hybrid schedule with most people working 2-3 days at home and the balance in person in the Marine Science Research Building (MSRB). Thus far, we have been very successful in adapting to the rapid pace of change.

5-YEAR PLAN

Looking to the future MSI has the following goals for the next 5 years. Foremost is the completion of the open search for a new permanent director as the current director's service ends July 1, 2020. Interim Director Hofmann will be in place until a new Director is hired, hopefully spring- summer 2022. This is a vital position for campus that will influence the quality of marine science research at UCSB for the next decade.

Over the past few years MSI's has met its goal to broaden REEF programs to better serve the core mission of the university by increasing the number of UCSB undergraduates that participate in the various REEF programs offered. At present, the REEF is expected to experience shortfalls in funding, which largely comes from donor funds. This will likely occur in 2023-2024, and the MSI is working with development and campus to strengthen the financial future for the REEF. Given the fact that the REEF serves 4,000 undergraduates per year a solution based on contribution to UCSB's core educational mission is justified. We have partnered with six campus divisions ranging from Academic Affairs to Student Affairs and Administrative Services to engage

undergraduates at multiple levels, the REEF provides campus services at no charge to a variety of campus units including: the Alumni Association, Campus Outreach including Admit Day, Parents Weekend, Gevirtz Graduate School of Education, Office of Education Partnerships and at many times, represents UCSB as a public portal to the ocean view of the world. This success compliments the record number of 18,000 public visitors to the REEF in the year before the pandemic. This is an impressive achievement when one considers that the entire operation is managed and run by a single staff member with the assistance from undergraduate student docents

A continuing goal at MSI is to capitalize on the untapped research potential of its investigators by creating a fund to catalyze new research endeavors that will provide seed money for turning new ideas into proposals. The goal is to fund collaborative groups to sponsor workshops, meetings with program managers and other activities that will position MSI researchers for success on new innovative projects. This is especially important for professional researchers who are not eligible for university research funds through the academic senate.

An unmet goal is financial support for professional researchers who rely on grants for 100% of their salaries. Professional researchers continue to account for over half of MSI's grant and research activity. MSI continues to work with OR to find ways of supporting this group. Beyond support for all researchers there is a subset of professional researchers that merit special attention. Professional researchers at MSI lead the largest of our collaborative group projects including the SBC LTER, the MBON and the SONGS project. These group projects are often leveraged by other investigators that bring in significant research funding beyond the original project. Leading one of these projects demands considerable time and effort which is often not covered by the project budget. A system that rewards researchers for taking on these leadership roles will ensure that MSI can continue to organize the teams necessary to compete for, manage and renew these and other large programs.

Future continued growth in marine research at UCSB will require MSI to seek additional research space. MSI is fortunate to have access to research space in the MSRB which is strategically deployed in support of collaborative projects and individual projects for both ladder rank faculty and professional researchers. Recently MSI lost thousands of square feet of research space with the demolition of building 408. Much of MSI's membership is from departments that are also experiencing space limitations. MSI is now working with departments to explore creative solutions for new research space. Our approach is to develop partnerships that will produce synergies to allow new space to meet multiple needs across campus. Efforts continue to be focused on replacing the "Old Marine Laboratory" at campus point which suffers from severe structural deficiencies which would offer the opportunity to construct a new expanded

state-of-the-art facility. We also have researchers that are enthusiastic to move to Devereux should space be made available. Fitting out the shell of the former “OCTOS” outreach building as research space also remains a possibility.

MSI’s current budget is sound and all recharge units are expected to have balanced budgets for the next fiscal year, the pandemic losses are in recovery. However, gaps in our ability to support the director of the REEF are anticipated in 2023-2024, and we would like to see a large-scale renovation of the seawater workrooms and tanks which have not been modernized since the opening of the building in 2004. Notably, there are new technologies and systems that would open up new, exciting areas of research, especially with regard to climate change impacts, something that would benefit MSI and the entire UCSB community.

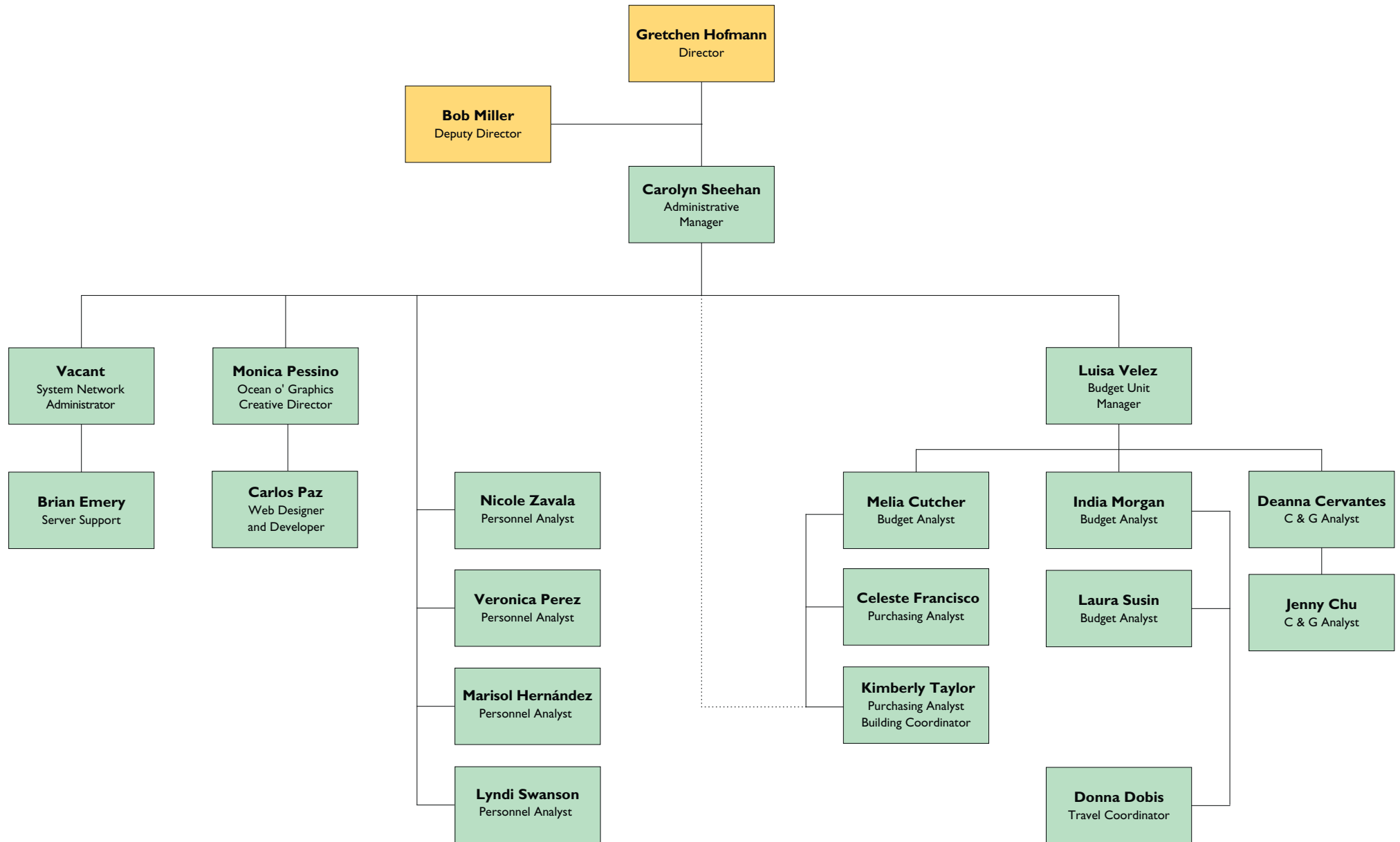






Organizational Chart

MARINE SCIENCE INSTITUTE ORGANIZATIONAL CHART







MSI Advisory Committee,
Administrative
and Technical Staff

Marine Science Institute Advisory Committee | 2020–2021

CHANCELLOR

HENRY T. YANG

EXECUTIVE VICE CHANCELLOR

DAVID MARSHALL

VICE CHANCELLOR FOR RESEARCH

JOSEPH INCANDELA

DIRECTOR (07/01/20 – 12/31/20)

MARK A. BRZEZINSKI

Interim Director (01/01/21 – 06/30/21)

Gretchen Hofmann

DEPUTY DIRECTOR (07/01/20 - 12/31/20)

DAN REED

Interim DEPUTY DIRECTOR (01/01/21 – 06/30/21)

Bob Miller

Advisory Committee

Darcy Bradley, Bren

Jenn Caselle, Committee Chair, MSI

Anthony De Tomaso, MCDB

Jennifer Dugan, MSI

Erika Eliason, EEMB Adam Lambert, MSI

Adam Lambert, MSI

Holly Moeller, EEMB

Nick Nidzieko, Geography

Alyson Santoro, EEMB

William Smith, MCDB

Mark Torchin, MSI

Ex-Officio Members

Mark Brzezinski, Director, MSI

Gretchen Hofmann, Interim Director MSI

Charles Lester, Director, Ocean Coastal Policy Center

Bob Miller, Interim Deputy Director, MSI

Dan Reed, Deputy Director, MSI

Carolyn Sheehan, Manager, MSI

Russell Schmitt, Director, Coastal Research Center

Marine Science Institute Administrative and Technical Staff

Director, Mark Brzezinski (07/01/20 – 12/31/20)

Interim Director, Gretchen Hofmann (01/01/21 – 06/30/21)

Deputy Director, Dan Reed (07/01/20 – 12/31/20)

Interim Deputy Director, Bob Miller (01/01/21 – 06/30/21)

Management Services Officer, Carolyn Sheehan

Financial Manager, Luisa Velez

Budget/Purchasing Analyst, Melia Cutcher

Budget Analyst, India Morgan

Budget Analyst, Laura Susin

Contracts & Grants Officer, Jenny Chu

Contracts & Grants Officer, Deanna Cervantes

Development Officer, Matt Fratus

Education & Outreach, Scott Simon

Graphics Manager, Monica Pessino

Web Developer, Carlos Paz

IT & Server Support, Brian Emery

Personnel Analyst III, Nicole Zavala

Personnel Analyst III, Veronica Perez

Personnel/Payroll Analyst, Marisol Hernandez

Personnel/Payroll Analyst, Lyndi Swanson

Purchasing Analyst/Building Coordinator, Kimberly Taylor

Purchasing Analyst Lukas Cheka/Celeste Francisco

Travel Coordinator, Donna Dobis



Statistical Summary for the Marine Science Institute 2020–2021

	MSI
Personnel engaged in research (head count)	
Faculty	28
Professional Researchers (including Visiting)	19
Project Scientists	4
Specialists	34
Postdoctoral Scholars	34
Postgraduate Researchers	31
Graduate Students	75
Undergraduate Students	86
Technical & Research Staff	76
TOTAL	387

Participation from outside UCSB (head count)	
Academics (without Salary Academic Visitors)	72
Other (specify)	0
TOTAL	72

Unit Operational Staff (# of FTE)	
Administrative	17
Computing	0.5
Technical & Service (e.g. recharge personnel, lab manager)	3.5
Programmatic Staff	0
TOTAL	21

	MSI
Sponsored Research	
Number of Principal Investigators*	77
Proposals submitted (#)	141
Proposals submitted (\$ value)	\$70,051,899
Awards issued (#)	97
Awards issued (\$ value)	\$17,541,648
Extramural awards administered during year (#)**	277
Extramural awards administered during year (\$ value)***	\$96,618,400
Costshare funds managed during year (\$ value)**	310
Awarding agencies dealt with (#)****	82
Other Projects & Programs	
Seminars, symposia, workshops sponsored (#)	0
Other projects administered (#)****	90
Other projects administered (\$ value)*****	\$17,315,731
Intramural support administered (\$ value)**	\$675,998.71
Budget & Space	
Total base budget for the year	\$1,964,490.7
Total assigned square footage in ORU	38,807

* Number of PIs, Co-PIs and Proposed PIs (count each person only once.)

** If the award was open during the year, even if for only one month, please include in total.

*** Count each agency only once (include agencies to which proposals have been submitted).

**** Other projects—such as donation, presidential awards, fellowships, anything that isn't core budget, extramural, or intramural.



Marine Science Institute
Principal Investigators
2020–2021

Marine Science Institute Principal Investigators 2020–2021

Adam, Thomas	Assistant Researcher	Marine Science Institute
Arrington, Eleanor	Graduate Student	Earth Science
Beckley, Emma	Graduate Student	Ecology, Evolution & Marine Biology
Bell, Thomas	Project Scientist	Earth Research Institute
Blanchette, Carol	Associate Researcher	Marine Science Institute
Bone, Jennifer	Associate Specialist	Marine Science Institute
Bradley, Darcy	Assistant Researcher	Marine Science Institute
Briggs, Cheryl	Professor	Ecology, Evolution & Marine Biology
Brooks, Andy	Project Scientist	Marine Science Institute
Brzezinski, Mark	Professor	Ecology, Evolution & Marine Biology
Bull, Ann	Visiting Researcher	Marine Science Institute
Burkepile, Deron	Professor	Ecology, Evolution & Marine Biology
Cabral, Reniel	Assistant Researcher	Marine Science Institute
Caldow, Chris	Research Associate	Marine Science Institute
Capece, Lena Rose	Graduate Student	Earth Science
Carleton, Tamma	Assistant Professor	Bren School of Envir. Sci. & Management
Carlson, Craig	Professor	Ecology, Evolution & Marine Biology
Caselle, Jennifer	Researcher	Marine Science Institute
Costello, Christopher	Professor	Bren School of Envir. Sci. & Management
Culver, Carrie	Research Scientist	Marine Science Institute
D'Antonio, Carla	Professor	Environmental Studies
Deschenes, Olivier	Professor	Economics
Dudley, Tom	Researcher	Marine Science Institute
Dugan, Jenifer	Researcher	Marine Science Institute
Eliason, Erika	Assistant Professor	Ecology, Evolution, and Marine Biology
Emery, Brian	Assistant Researcher	Marine Science Institute
Emery, Kyle	Graduate Student	Ecology, Evolution & Marine Biology

Foltz, Kathy	Associate Professor	Molecular, Cellular & Devel. Biology
Free, Christopher	Assistant Researcher	Marine Science Institute
Froehlich, Halley	Assistant Professor	Environmental Studies/EEMB
Gaines, Steven	Dean, Bren School, Professor	Bren School of Envir. Sci. & Management
Gately, James	Graduate Student	Ecology, Evolution, and Marine Biology
Geyer, Roland	Professor	Bren School of Envir. Sci. & Management
Green, Patrick	Postdoctoral Researcher	Ecology, Evolution & Marine Biology
Heilmayr, Robert	Assistant Professor	Bren School of Envir. Sci. & Management
Herbst, David	Associate Researcher	Marine Science Institute
Hodges, Scott	Professor	Ecology, Evolution & Marine Biology
Hofmann, Gretchen	Professor	Ecology, Evolution & Marine Biology
Holbrook, Sally	Professor of Biology	Ecology, Evolution & Marine Biology
Iglesias-Rodriguez, Maria	Professor	Ecology, Evolution & Marine Biology
Ingeman, Kurt	Postdoctoral Researcher	Ecology, Evolution & Marine Biology
Jack, Kelsey	Associate Professor	Bren School of Envir. Sci. & Management
Jerde, Chris	Assistant Researcher	Marine Science Institute
Johnston, Karina	Graduate Student	Ecology, Evolution & Marine Biology
Kennett, James	Emeritus Research Professor	Earth Science
Kuczenski, Brandon	Associate Researcher	ISBER
Kuris, Armand	Professor of Biology	Ecology, Evolution & Marine Biology
Lafferty, Kevin	Research Biologist	Marine Science Institute
Lambert, Adam	Associate Research Biologist	Marine Science Institute
Lea, David	Professor	Earth Science

Lenihan, Hunter	Professor	Bren School of Envir. Sci. & Management
Lester, Charles	Researcher	Marine Science Institute
Lisiecki, Lorraine	Professor	Earth Science
Love, Milton	Researcher Emeritus	Marine Science Institute
Love-Anderegg, Leander	Assistant Professor	Ecology, Evolution & Marine Biology
MacDonald, Andy	Assistant Researcher	Earth Research Institute
MacIntyre, Sally	Professor	Ecology, Evolution & Marine Biology
Mazer, Susan	Professor	Ecology, Evolution & Marine Biology
McCauley, Douglas	Assistant Professor	Ecology, Evolution & Marine Biology
McDonald, Gavin	Specialist	Bren School of Envir. Sci. & Management
Melack, John	Professor	Ecology, Evolution & Marine Biology
Meng, Kyle	Associate Professor	Bren School of Envir. Sci. & Management
Miller, Robert	Researcher	Marine Science Institute
Moeller, Holly	Assistant Professor	Ecology, Evolution & Marine Biology
Muller, Erik	Associate Researcher	Marine Science Institute
Nicholson, Craig	Researcher	Marine Science Institute
Nidzieko, Nicholas	Assistant Professor	Geography
Nisbet, Roger	Professor	Ecology, Evolution & Marine Biology
Oakley, Todd	Professor	Ecology, Evolution & Marine Biology
O'Brien, Margaret	Specialist	Marine Science Institute
Page, Henry Mark	Researcher	Marine Science Institute
Pak, Dorothy	Academic Coordinator	Marine Science Institute
Park, Isaac	Project Scientist	Marine Science Institute
Peng, Xuefeng	Postdoctoral Researcher	Marine Science Institute
Plantinga, Andrew	Professor	Bren School of Envir. Sci. & Management
Prouix, Stephen	Associate Professor	Bren School of Envir. Sci. & Management
Raven, Morgan	Assistant Professor	Geology
Reed, Daniel	Researcher	Marine Science Institute

Santoro, Alyson	Assistant Professor	Ecology, Evolution & Marine Biology
Schmitt, Russell	Professor	Ecology, Evolution & Marine Biology
Schroeter, Stephen	Researcher	Marine Science Institute
Siegel, David	Professor	Geography
Simon, Scott	REEF Manager	Marine Science Institute
Sokolow, Susanne	Postdoctoral Researcher	Marine Science Institute
Stier, Adrian	Associate Professor	Ecology, Evolution & Marine Biology
Torchin, Mark	Researcher	Marine Science Institute
Valentine, David	Professor	Earth Sciences
Waite, J. Herbert	Professor	Molecular, Cellular & Devel. Biology
Warner, Robert	Professor	Ecology, Evolution & Marine Biology
Washburn, Libe	Professor	Geography
Wilson, Douglas	Research Geologist	Earth Science
Wittmann, Marion	Executive Director	Natural Reserve System
Young, Hillary	Assistant Professor	Ecology, Evolution & Marine Biology
Young, Oran	Emeritus Research Professor	Bren School of Envir. Sci. & Management





Marine Science Institute
Postdoctoral Researchers,
Graduate and
Undergraduate Students
2020–2021

Marine Science Institute Postdoctoral Researchers, Graduate and Undergraduate Students 2020–2021

POSTDOCTORAL SCHOLARS

Archibald, Kevin M	Schooler, Nicholas K	De La Rosa, Gabriel T
Brown, Alexandra L	Siple, Margaret C	Deweese, Shane Landau
Closset, Ivia M	Spiecker, Barbara J	Dornan, Natalie N
Donovan, Mary K	Stephens, Brandon M	Dressler, Terra L
Dowdy, Kelsey Lee	Temino Boes, Regina	Eegholm, Nathalie Hoffmann
Englander, Aaron Gabriel	Titcomb, Georgia C	Emery, Kyle A
Eurich, Jacob G	Varney, Rebecca	English, Chance J
Ezzat, Leila	Wilber, Mark Quentin	Fitch, Robert Lloyd
Free, Christopher		Garcia, Alberto Gabriel
Ingeman, Kurt E		Gately, James A
James, Anna K		Goss, Hayley
Kellom, Matthew A		Gosselin, Kelsey
Ladd, Mark		Grimes, Nathaniel Gordon
Lang, Megan E		Hardesty Moore, Molly Ruth
Liu, Shuting		Hensley, Nicholai Marcus
Macias-Khan, Aide		Hobart, Bethany Michelle
Marraffini, Michelle L		Honeycutt, Randi N
Mclaughlin, John Peter		Johns, Jason Wells
Meng, Measrainsey		Katz, Tatum Shaw
Meyer-Gutbrod, Erin L		Kopecky, Kai Logan
Mizuta, Darien Danielle		Kraskura, Krista
Peng, Xuefeng		Leach, Terence S
Pfab, Franz Ferdinand		Liu, Na
		Love, Connor R

GRADUATE STUDENTS

Arrington, Eleanor Catherine

Baetge, Nicholas Q

Beckley, Billie A

Blomquist, Linus E

Bogan, Samuel Neill

Bui, An T

Carberry, Luke

Castaneda, Noe

Catlett, Dylan

Cedeno, Tiffany H

Chamorro, Jannine D

Comstock, Jacqueline A

Costola Pede, Anna

Couture, Jessica Leigh

Cox, Danielle Diane

Ma, Stephanie A	Stroud, Ashley M	Convey, Austin Izumi
Madden, Jessica Ryan	Sum, Yoke Ching Sandy	Daniel, Tyler A
Malagutti, Flavio A	Tarn, Jonathan	De La Rosa, Gabriel T
Malakhoff, Katrina D	Thivierge, Vincent	Della Colleta Vianna, Caio
Malloy, Christopher Joseph	Tye, Cecily J	Dinh, Heather
Maniscalco, Michael A	Uppal, Anagha	Douglas, Zoe Ann
Manley, Caitlin Marie	Vander Zee, David Lee	Eisaguirre, Jacob Henry
McDonald, Adriane M	Villasenor Derbez, Juan Carlos	Elbayar, Samantha K
Mesrop, Lisa Yeter	Zhao, Lily	Flores, Jose M
Michaud, Kristen M		Fogg, Sandra A
Miller, Karly M	UNDERGRADUATE STUDENTS	Garcia Wickstrum, Hannah A
Morse, Marisa Lynn	Addinall, Michael Dagan	Gaytan, Yvette
Neumann, Kyle	Anderson, Claire E	Girling, Ivan M
Nolan, Madeline	Aplin, Allison R	Goodman, Adam
Nordheim, Caitlin L	Baksh, Nuzha	Grimes, Nathaniel Gordon
Peters, Joseph R	Bannister, Indigo T	Hacker, Allison Kathleen
Picciani De Souza, Natasha	Barhouma, Rachel N	Hawthorne, Cole
Qin, Qianhui	Beltran, Nelson V	Hernandez Cortes, Danae
Racine, Phoebe E	Bennett, Michelle K	Hollenback, Connor G
Ramirez Parada, Tadeo	Beshoff, Sophia D	Hsu, Tiffany
Rand, Devin Scott	Boborci, Madigan	Huang, Kaipeng
Rennick, Mae C	Boyle, Sarah	Hunt, Abigail D
Romine, Jeffrey Reed	Brewster, Chase Wynns	Jain, Alyssa
Russell, Imani D	Carraher, Anita	Jennings, Lauren C
Schuelke, Taruna Aggarwal	Chan, Iris J	Juengling Bean, Eva
Speare, Kelly E	Chen, Wei Tung	Keeling, Lukas
Strauss, Charles Kent	Chupein, Sophia M	Kittner, Hailie
	Clarke, Madison	

Kolhatkar, Rucha Shekhar	Sorrentino, Celest Nicole
Krotine, Kimberly S	Soto, Abraham
Lamour, Timothy W	Spiegleman ,Joanne D
Landfield, Kaitlyn M	Steffen, Callie Marie
Leslie, Mika	Strauss, Charles Kent
Malagutti, Flavio A	Suzuki, Kana
Manalo, Zoe	Toomey, Mary Elizabeth
Mason, Margot	Truong, Jennifer K
Matthews III, George Elliott	VanBrocklin, Seth H
McCargar, Grant	Vander Zee, David Lee
McCracken, Kaelen	Villasenor Derbez, Juan Carlos
Michaud, Kristen M	Walton, Miette P
Monper, Kyle	Wilson, Margaret W
Nguyen, Derek H	Winslow, Erin M
Nguyen, Thienan Daz	Zounes, Jade A
Nortier Tilly, Cassiel	
Oliver, Madeline Claire	
Parcell, Theresa	
Pierce, Kyla	
Plouffe ,Kyler A	
Rhodes, Rachel Alicia	
Rivera, Kennedy	
Romine, Jeffrey Reed	
Sandhu, Navdeep	
Santos, Julia Beatriz Perez	
Shei, Jessica	
Silva, Juan A	



External Participation

Marine Science Institute External Participation 2020–2021

AFFILIATED RESEARCHERS	
Ambrose, Rich	UCLA
Amiri, Sarah-Marie	UCSD
Ballerini, Evangeline	CSAC
Best, Ben	ECOQUANTS
Bills, Marissa	NRI
Bingham, Shauna	NOAA
Bisht, Nik	Researcher off campus
Buhl, Jackie	NOAA
Bursek, Julie	NOAA
Carpenter, Robert	CSUN
Carr, Mark	UCSC
Costa, Bryan	NOAA
Couture, Jessica	NOAA
Crowder, David	NOAA
Culver,Carolynn	California SeaGrant/UCSD
Curtis, Joseph	University of Otago in Dunedin, New Zealand
DeProspero, Nicolas	NOAA
Duncan, Elizabeth	NOAA
Edmunds, Peter	CSUN
Emery, Katherine	SBCC
Engle, John	Emeriti
Fackler, Claire	NOAA
Ferguson, Jeffrey	NOAA
Fisher, Alexander	University of Washington
Francis, Laura	NOAA
Freedman, Ryan	NOAA
Ftwi, Nahom	UMES
Gotschalk, Chris	Retired UCSB
Hechinger, Ryan	UCSD/Scripps
Hernandez Cortes, Danae	Researcher off campus
Huang, Yuhuan	Visiting researcher from China.
Huckelbridge, Kate	Coastal Commission
Jacobs, Todd	NOAA
Jin, Xin	Researcher off campus
Johnson, Cyril	Cal Poly

Johnson, Gabrielle	NOAA
Jones, Michael	Sales Force
Koehn, Kathryn	Researcher off campus
Larios, Eugenio	Universidad Estatal De Sonora
Mason, Margot	Researcher off campus
McKinley, Cheyenne	Bucknell University
McSweeney, Jack	Oregon State
Meng, Measrainsey	Invenia Labs and located in Cambridge, England.
Meyerhof, Matthew	Researcher off campus
Mobley, Chris	NOAA
Morten, Jessica	NOAA
Murray, Michael	NOAA
Myers, Monique	Researcher off campus
O'Brien, Margaret	Recall w/UCSB
Pavlisca, Laura	Santa Clara River Conservancy
Raimondi, Pete	UCSC
Richards, John	Researcher off campus
Satterthwaite, Erin	NCEAS
Schneider, Heather	Santa Barbara Botanical Gardens
Schwemmer, Robert	NOAA
Selgrath, Jennifer	NOAA
Shaw, Jenny	Researcher off campus
Shrestha, June	NOAA
Spector, Pike	NOAA
Summers, Larry	UMES
Sweeney, Edward	NOAA
Trokkel, Dale	CODAR
Weber, Paige	UNC
Wegmann, Alex	The Nature Conservancy
Young, Rebecca	NOAA





Other Projects & Activities



Coastal Research Center

The Coastal Research Center is an organizational unit within the Marine Science Institute at UCSB. The central theme of the Center is to develop scientific knowledge to gain a more complete understanding of coastal and island ecosystems, which is necessary for sound management of the natural resources within coastal and island regions. The Center links academic scientists from a wide variety of disciplines, enhancing the ability to address marine environmental issues.

While CRC scientists work in marine environments throughout the world, much effort is focused on coastal reefs found in the Santa Barbara Channel region and the coral reefs surrounding the island of Moorea, French Polynesia. These two locations provide excellent model systems for the scientific exploration of a wide range of marine issues and scientists at UCSB have long valued these environments as natural laboratories for scientific study. Both areas are enjoyed by those seeking recreation, support important local fisheries and are faced with growing conflicts amongst different user groups as human population pressures increase, a trend that is common for many marine environments. The nearshore marine environments of California and the islands of French Polynesia are used increasingly as a disposal site for waste products. Renewed exploitation of oil and natural gas reserves has augmented the number of conflicting demands placed upon the Channel resources, while issues related to global climate change have increased concerns about the sustainability of coral reef ecosystems. Local issues related to the sustainability of commercial and sport fisheries in both regions mirror global concerns regarding management of exploited stocks. The cumulative effects of human activities on the natural resources of both of these regions are just beginning to be understood. It is imperative that we learn how to balance the multiple uses of nearshore ocean waters in an environmentally sound manner. Lessons learned by scientists in the Coastal Research Center have wide implications for understanding and resolving present and future problems, and will help local, regional and national regulators develop better management policies.

Development of sound management plans for areas such as the Santa Barbara Channel or the islands of French Polynesia is hampered by scientific uncertainty about the consequences of human activities. To understand and predict natural and anthropogenic disturbances, synthesis of new and existing knowledge of many scientific aspects of coastal marine systems - including biology, ecology, genetics, geology, chemistry and oceanography - will be necessary. Further, the development of new approaches and the use of

emerging technologies are needed to resolve fundamental questions, some of which have remained unanswered for many years. Only with these advances will it be possible to make reliable predictions about the consequences of various activities, to develop the ability to restore degraded habitats and conserve valuable resources, and to foster development of environmentally sound policies for use of coastal or island regions in general.

The Center has four major objectives:

- To facilitate and promote interdisciplinary research initiatives
- To act as a center for production and integration of basic scientific information to more fully understand coastal and island ecosystems and their natural and exploited populations.
- To evaluate and predict effects of human activities on the marine environment, and to develop measures to ameliorate lost or degraded natural resources.
- To train students in basic research on marine environmental issues that may be applicable to decision-makers.
- To facilitate and promote interdisciplinary research initiatives.

Ocean and Coastal Policy Center

The Future of the Coast is Now. The Ocean and Coastal Policy Center at UCSB (OCPC) is engaging questions that speak to a central challenge of our time: *How can we live sustainably and equitably on our coasts in the face of unprecedented environmental change?* OCPC offers coastal policy analysis, advising and education to government, NGOs, students and citizens working for our coasts. This past year, OCPC expanded its work in three major policy areas:

Climate Change, Adaptation, and Coastal Resilience. OCPC launched a 2-year effort to research the status and trends of adaptation planning for sea level rise on California's outer coast. The work will identify information needs and policy recommendations for improving how California adapts to global sea level rise. This effort includes a nearly \$400,000 grant from the California Ocean Protection Council supporting OCPC research and the hiring of graduate researcher Caitlin Manley, a student in UCSB's Bren School for Environmental Science and Management. Dr. Lester also received a UC multicampus research award with colleagues at UC Santa Cruz and UC San Diego to explore how the University of California can help address the challenge of coastal adaptation. As summarized by Dr. Lester, the UC award is *"an opportunity to bring physical and social science together to help California stay resilient in the face of climate change, so that all Californians can continue to live, enjoy, and thrive along our coast."*

Dr. Lester also continued his work with other practitioners in the coastal resilience field, including offering closing remarks (at 3:13:10) at the UCI/Coastal Quest Implementing and Scaling Resilient Solutions in Coastal California conference.

Environmental Justice and Protection of the Public Trust. Dr. Lester completed a research report examining the implications of the inevitable inland movement of the mean high tide line due to sea level rise for the management of adjacent and often competing public and private interests along the shoreline. The report will be available and presented to the California Coastal



Photo: Charles Lester

Commission November 17, 2021. In June, Dr. Lester chaired a panel, Retreat to Justice: Dimensions of Social Equity on the California Coast, at the second Columbia University conference on Managed Retreat, joining other resilience experts to speak about social equity and coastal adaptation in California. OCPC has also joined an interdisciplinary team from CSU Channel Islands and San Francisco State University to address public beach access, sea level rise and social equity in the Santa Barbara region, and provide recommendations to state and local beach managers for improving equitable beach access. The “Beach Sustainability Assessment for Comprehensive Analysis and Management” project is funded by the CSU Council on Ocean Affairs, Science & Technology and California Sea Grant.



OPC Video: Evaluating SLR Adaptation Planning

Global Coastal Conservation Exchange. OCPC continued collaborating with practitioners and researchers in Chile working to improve the conservation of Chile’s incredible coast. In December, Dr. Lester gave a keynote address (at 28:00) for an international seminar about enhancing coastal governance in Chile. He also prepared a brochure in English and Spanish summarizing California coastal management lessons for practitioners in Chile, and a corresponding chapter for a forthcoming book about coastal management in Chile (in press).

Other Activities. Dr. Lester continued working in a variety of intergovernmental and other forums, including co-chairing the sea-level rise adaptation subcommittee of Santa Barbara County’s Regional Climate Collaborative, and serving on the Science Advisory Committee of the Beach Erosion Authority for Clean Oceans and Nourishment (BEACON) in Santa Barbara and Ventura Counties, and the Goleta Slough Management Committee. He also joined an advisory group for the Coal Oil Point Reserve, was invited to be a Councilor for the Chile California Council, and was appointed by UCSB Chancellor Yang to the UCSB Coastal Planning Science Advisory Board to help prepare a sea level rise study for the campus. Dr. Lester also continued to give invited talks about coastal resilience, planning and regulation in California (for example, Adapting to Sea Level Rise in Coastal California, presentation to the Environmental Action Committee of West



Marin). On the teaching front, Dr. Lester was an advisor for two Environmental Studies student senior theses examining aspects of climate change, adaptation and coastal resource management.

OCPC IN THE NEWS

- UCSB Current: [The Future of the Coast](#)
- Los Angeles Times: [How should California confront the rising sea? These lawmakers have some bold ideas](#)
- CBS Los Angeles: [Beach Erosion Suspends All Metrolink, Amtrak Service Between OC, San Diego](#)
- SB Noozhawk: [Winds of Change: UCSB Experts Weigh in on Effects of Offshore Wind Energy](#)

MORE INFORMATION

For more information, please visit the OCPC website or contact: Dr. Charles Lester, Director, at charleslester@ucsb.edu or phone: 831-706-8280.

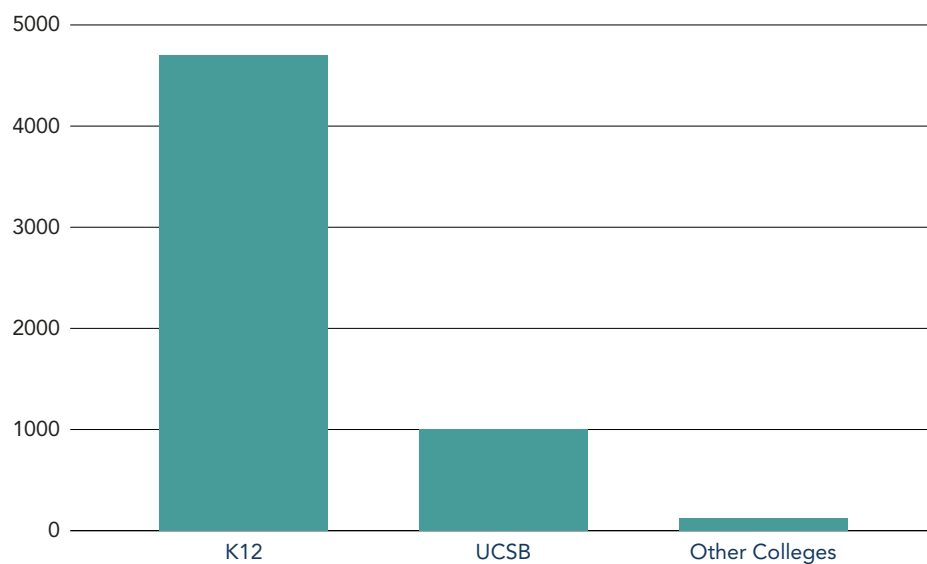
Analytical Laboratory

The MSI Analytical Lab is a professionally managed chemical analysis facility with the objectives of improving the quality and efficiency of marine-related research efforts, and of providing advanced capabilities for new and expanded research programs. Originally established in 1977 to serve the needs of UCSB marine researchers, the facility is now recognized campus wide as well as nationally as a resource for high-quality analytical services. The major capabilities of the lab include wt% elemental analysis of carbon, hydrogen and nitrogen (CHN) by combustion and automated determination of dissolved nutrients in natural waters using a 5-channel Flow Injection Analyzer. The lab also provides a stable isotope facility for UCSB researchers. The facility includes maintained instrumentation and training for the determination of stable isotopes of carbon and nitrogen in biological and geological materials using continuous-flow Isotope Ratio Mass Spectrometry. Most of the Lab's current instrumentation was obtained with extramural funding from grants acquired by the Lab manager in conjunction with interested faculty and researchers. The Lab operation is supported largely through user fees. There are currently two full time staff members employed in the Analytical Laboratory. The covid-19 pandemic halted operation for four months and has continued to slow down operation, but we have still been able to meet researcher needs in a safe and timely manner. Please visit our website at msi.ucsb.edu/services/analytical-lab for more information.

MSI Education and Outreach

Prior to the pandemic, the 2019-2020 year for MSI Oceans-To-Classrooms (O2C) Education/Outreach Programs was headed for a record year with over 400 classes, courses, programs and visits scheduled, for an estimated total of **32,710** visitors! While we saw many changes due to the COVID-19 pandemic and our overall numbers were down, up until the shutdown in March we had served over 11,000 K-12, college and general public visitors!

Since the shutdown, we were able to respond to teachers and course needs through the design and development of distance teaching strategies and online resources, including the VirtualREEF YouTube Channel. Through these changes we were able to provide marine science education and awareness to over 5,000 people including use by over 50 teachers in our database continuing to support schools and programs within the Tri-Counties (SLO/SB/Ventura), as well as other communities from California. Because of our online presence we reached students in San Francisco, Chicago, South America and JAPAN through our participation in UCSB's Virtual Youth Summit in collaboration with the Gevirtz Graduate School of Education at UCSB! Exposure included live, Zoom meetings in the Research Experience & Education Facility (REEF), as well as UCSB outreach events through Orientation and Visitor Center programs.

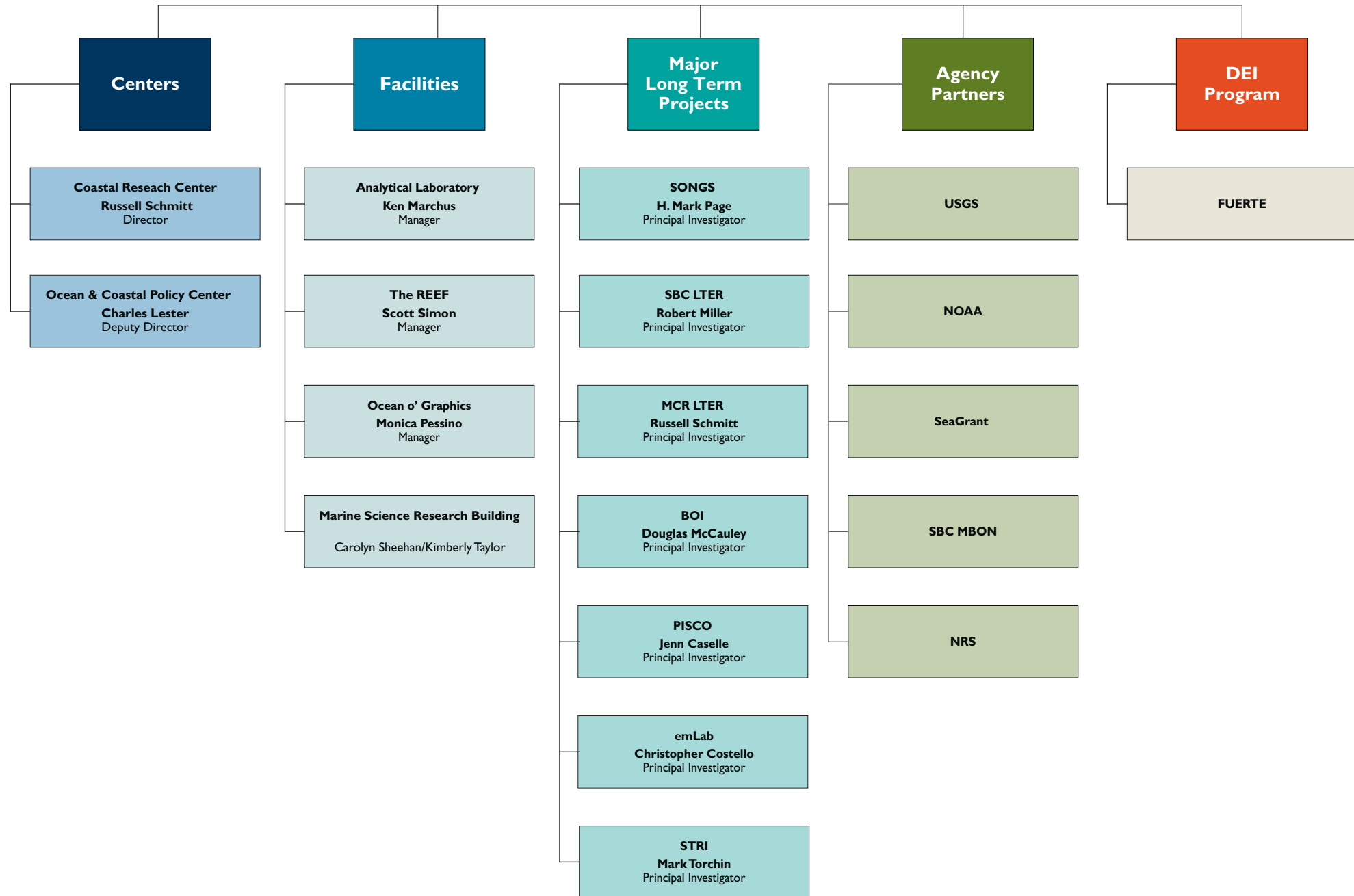


Graph of number of visitors by user group

University of California Santa Barbara (UCSB), as well as other universities, have continued to include the REEF as part of their curriculum through live zooms. We are excited to have many courses and schools scheduling in-person visits this fall! We have continued to maintain our YouTube Channel- The VirtualREEF (115 subscribers and over 5,200 views!) and our Instagram social media platforms.

None of this would have been possible without the continued support and collaborations from groups both on- and off-campus. This includes the Office of Education Partnerships, The Gevirtz Graduate School of Education(GGSE), The AS Coastal Fund, Santa Barbara Channel Islands National Marine Sanctuary (CINMS) and many more. One partnership of note is with the American Association of University Women (AAUW) and the Tech Trek Math & Science Camp for Girls, which brings 160 middle school girls from SB, Ventura, SLO, LA and Kern Counties to UCSB for a week-long residential experience. Though the campus was closed due to the pandemic, we were still able to support almost 65 girls through a virtual camp experience!

MARINE SCIENCE INSTITUTE Other Projects and Activities 2020–2021



The REEF: The Research Experience and Education Facility

SONGS: Nuclear Generating Station

SBC LTER: Santa Barbara Coastal Term Ecological Research

MCR LTER: Moorea Coral Reef Long-term Ecological Research

BOI: Benioff Ocean Initiative

PISCO: Partnership for Interdisciplinary Studies of Coastal Oceans

emLab: Environmental Market Solutions Lab

STRI: Smithsonian Tropical Research Institute

USGS: United States Geological Survey

NOAA: National Oceanic and Atmospheric Administration

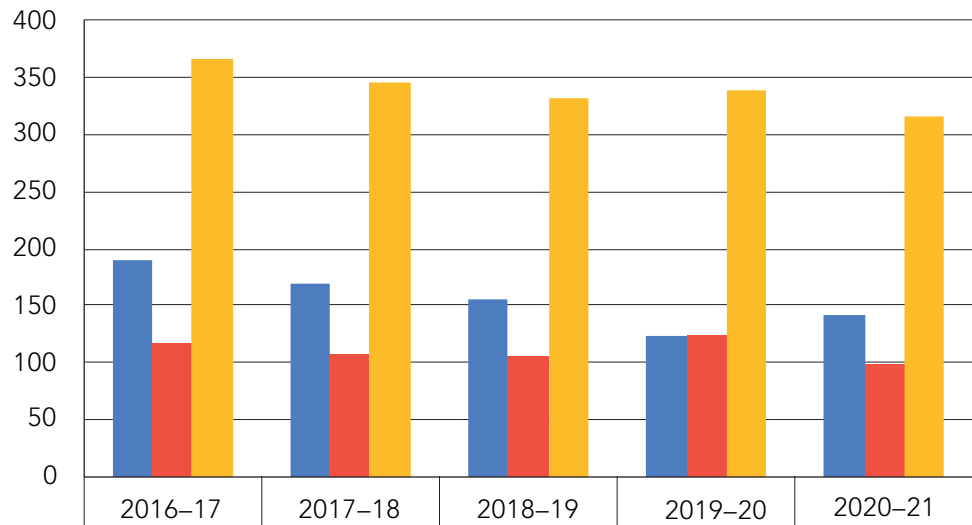
SBC MBON: Southern California Bight Marine Biodiversity Observation Network

NRS: Natural Reserve System

FUERTE: Field-based Undergraduate Engagement through Research, Teaching, and Education

Proposal & Award Administration

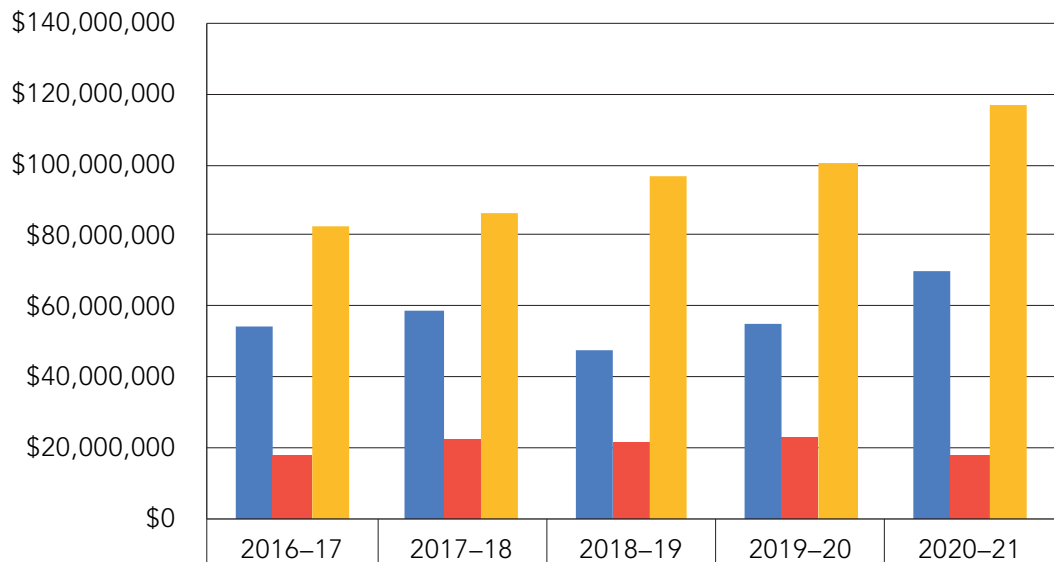
Proposal Submitted, Awards Issued and Total Projects Administered | 2016–2021



■ Proposals Submitted	190	169	156	123	141
■ Awards Issued	117	107	106	123	97
■ Total Projects Administered	367	346	331	340	317

- Proposals Submitted
- Awards Issued
- Total Projects Administered

Value of Proposals Submitted, Value of Awards Funded and Total Funds Administered | 2016–2021



Value of Proposals Submitted	\$54,435,349	\$58,564,084	\$47,771,261	\$54,710,534	\$70,051,899
Value of Awards Funded	\$17,419,502	\$22,463,099	\$21,294,133	\$22,876,146	\$17,541,648
Total Funds Administered	\$82,475,035	\$86,460,197	\$96,794,967	\$100,303,980	\$116,800,538

- Value of Proposals Submitted
- Value of Awards Funded
- Total Funds Administered





Space

Marine Science Research Building | Bldg. No. 520 – 1st floor
06/2020



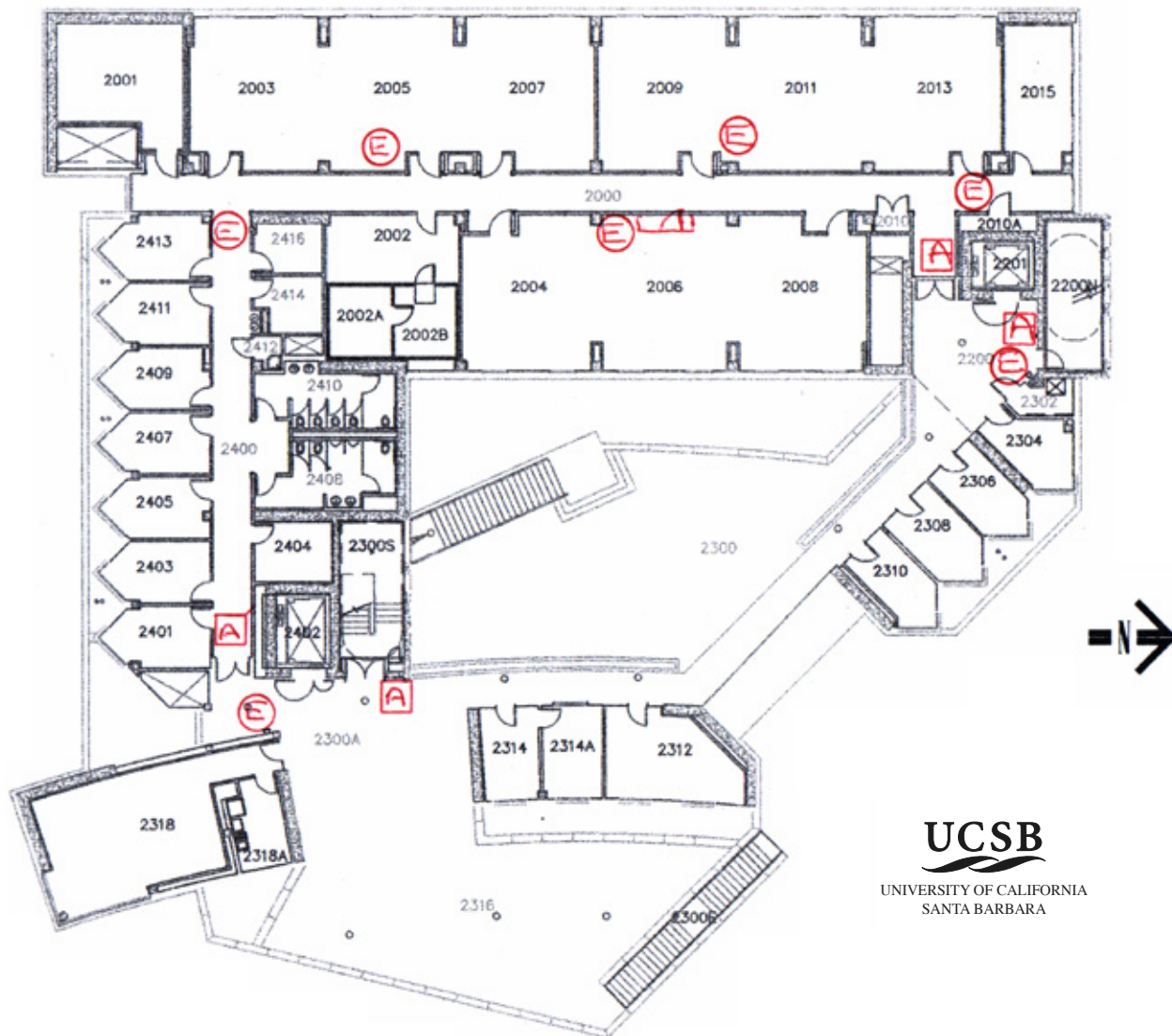
1001	Seawater workroom
1002	Common support laboratory
1003	Valentine laboratory
1004	Page/Dugan laboratory
1005	Valentine laboratory
1006	SONGS
1007	Siegel laboratory
1008	Jackson laboratory

1009	Analytical laboratory
1010	Jackson laboratory
1011	Analytical laboratory
1204	Graduate Students office
1206	Post Doc/Graduate Students office
1208	Graduate Students office
1302	Auditorium
1304	SFG

1304a	SFG
1304b	SFG
1308	Copier room
1310	Carrie Culver
1312	MSI Researchers office
1314	MSI Researchers office
1409	Seawater workroom
1411	Seawater workroom
1413	Seawater workroom

Marine Science Research Building | Bldg. No. 520 – 2nd floor

06/2020



2001	Seawater workroom
2002	Common support laboratory
2002a	Environmental room
2002b	Environmental room
2003	Hofmann laboratory
2004	Miller laboratory
2005	Hofmann laboratory
2006	Miller laboratory
2007	Hofmann laboratory
2008	Shared laboratory

2009	Burkepile laboratory
2011	Burkepile laboratory
2013	Burkepile laboratory
2015	SONGS project
2304	Burkepile Researchers office
2306	Erika Eliason
2308	Kevin Lafferty
2310	Bob Miller
2312	Benioff Ocean Initiative
2314	Benioff Ocean Initiative

2314a	Benioff Ocean Initiative
2318	Conference room
2401	Mark Page
2403	Jenifer Dugan
2405	MSI Researchers office
2407	Mark Torchin
2409	Hofmann Researchers office
2410	Restrooms
2411	Hofmann Researchers office
2413	Hofmann Researchers office

UCSB
UNIVERSITY OF CALIFORNIA
SANTA BARBARA

Marine Science Research Building | Bldg. No. 520 – 3rd floor 06/2020



3001	Seawater workroom
3002	Common support laboratory
3003	Reed laboratory
3004	Holbrook laboratory
3005	Reed laboratory
3005a	Common support laboratory
3006	Schmitt laboratory
3008	Blanchette laboratory
3009	PISCO laboratory
3011	Caselle laboratory

3013	Washburn laboratory
3014	Storage
3015	MacIntyre laboratory
3304	Charles Lester
3306	SBC LTER Researchers office
3308	Dan Reed
3310	Andrew Brooks
3312	CRC Researchers Office
3312a	CRC Researchers Office
3314	Russell Schmitt

3316	Sally Holbrook
3322	Conference room
3401	Margaret O'Brien – Mary Gastil-Buhl
3403	Adam Lambert
3405	BON Researchers office
3407	BON Researchers office
3409	Chris Jerde
3411	Craig Nicholson

Marine Science Research Building | Bldg. No. 520 – 4th floor

06/2020



4002	Receiving
4003	Ocean o' Graphics – Carlos Paz
4003a	Ocean o' Graphics – Monica Pessino
4003b	NRS
4003c	NRS
4004a	File Room
4004c	Kimberly Taylor / Lukas Cheka
4004d	Melia Cutcher
4005a	Nicole Zavala
4005a	Marisol Hernandez
4005b	Veronica Perez
4005c	Lyndi Swanson
4006a	India Morgan

4006a	Laura Susin
4006b	Melia Cutcher
4007	Mail room
4008	Break room
4009	MSI Researchers office
4009a	MSI IT
4009d	Brian Emery
4012	Server room
4013	MSI Researchers office
4304	Douglas McCauley
4306	Libe Washburn
4308	Sally MacIntyre
4310	Gretchen Hofmann
4312	Deron Burkepille
4314	Jenn Caselle

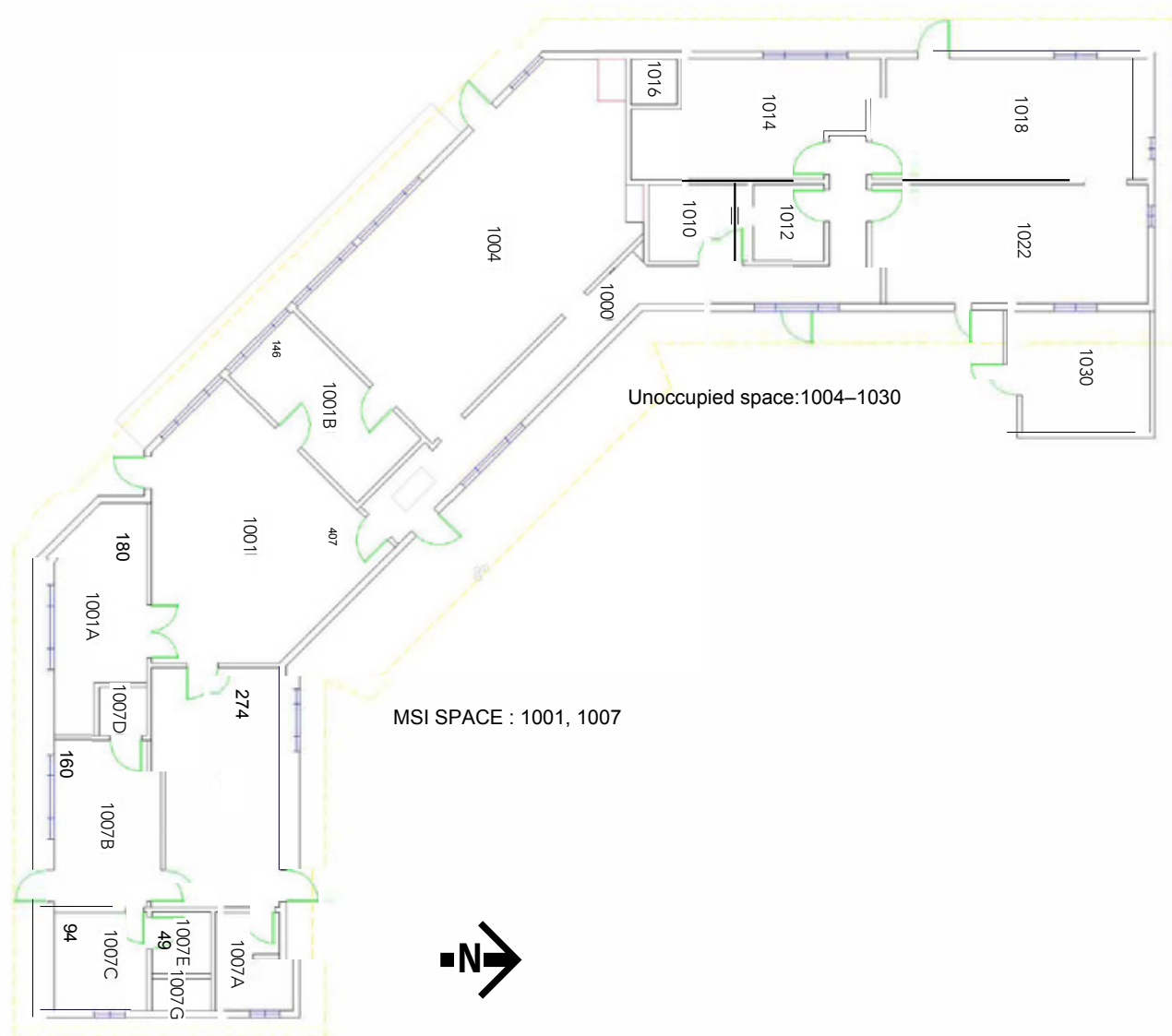
4316	Nick Nidzieko
4318	Conference Room
4322	SFG
4322a	Michaela Clemence
4322b	Robert Warner
4326b	Matt Fratus
4326	Development
4326a	MSI Director
4401	Carolyn Sheehan
4403	Joyce Wolever
4405	Luisa Velez
4407	MSI Administrator
4409a	Jenny Chu
4409b	Deanna Cervantes
4409c	Donna Dobis

Marine Science Institute | Trailers

334-a	Scott Simon
334-b	REEF
334-c	REEF



Marine Science Institute | Devereux West, 7955
06/2020



1001	Love data laboratory
1001a	Love laboratory
1001b	Milton Love office
1007	Kitchenette / break room

1007a	Restroom
1007b	Dorothy Pak office
1007c	Dorothy Pak laboratory
1007d	Closet

1007e	Storage
1007g	Utility room

**Marine Science Institute
UC Santa Barbara**

Santa Barbara, CA 93106 – 6150
805.893.4093

msi.ucsb.edu