NCEAS

National Center for Ecological Analysis and Synthesis

Annual Report

Fiscal Year 2020-2021

Transforming environmental science. Accelerating discovery. Generating solutions.

National Center for Ecological Analysis and Synthesis

Director: Ben Halpern

Annual Report

Fiscal Year 2020-2021

University of California, Santa Barbara

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MISSION STATEMENT

NCEAS's mission is to accelerate scientific discoveries that will enhance our understanding of the world and benefit people and nature, as well as to transform the scientific culture to be more open, efficient, and collaborative.

OVERVIEW

The National Center for Ecological Analysis and Synthesis (NCEAS) is an independent research center of UC Santa Barbara with a global network and impact. We conduct transformational science focused on informing solutions that will allow people and nature to thrive. Established in 1995, NCEAS has pioneered the movement toward scientific collaboration, openness, and synthesis in ecology and environmental science and has helped build a community of scientists around it.

We achieve **our mission**, stated above, through the following:

- **Enabling collaborations** between the brightest minds in the environmental sciences
- **Conducting breakthrough science** that is grounded in big-picture thinking
- **Improving analyses** through computing innovations that increase the usability of data
- **Partnering** with agencies and organizations that can help put the science to action
- **Training and inspiring** generations of scientists to practice synthesis and open science

Our approach to science is solutions oriented and enables discoveries at bigger scales and faster speeds, making them well positioned to inform environmental policy and management. The approach focuses on synthesis, leverages collaboration, and embraces and practices open science.

Environmental challenges are complex and their solutions require diverse perspectives and sets of expertise. In recognition of this, we convene multidisciplinary teams of academic and non-academic researchers from all over the world into working groups who, over the course of one to two years, tackle "wicked" questions collaboratively, an approach NCEAS first innovated and institutions around the world now emulate. These teams do not collect new data, but synthesize and analyze existing data from many sources to uncover new and often big-picture insights that can inform policy and management. Given that data must be accessible and reproducible to be useful and effective for solutions-oriented science, we strive to advance discovery and scientific culture in the direction of open science.

Another aspect of our approach is building **partnerships** with other research institutions, nonprofits, and government agencies, which can expand scientific capacity and help apply the science to solutions. For example, we operate the US Long-Term Ecological Research (LTER) Network Office, a partnership with the National Science Foundation and have engaged in long-term partnerships with nonprofits such as The Nature Conservancy (TNC) and the Wildlife

Conservation Society (WCS), along with private corporations like Microsoft AI for Earth and Universities around the world.

Our approach informs the three pillars of **our work**: research, data science, and training.

We lead synthesis and analytical research initiatives and projects that tackle big questions that would be difficult to answer with other scientific approaches. The following are current examples of our research:

- We lead the Ocean Health Index, a program that systematically assesses the health of the world's oceans annually for 220 coastal nations and territories, as well as at smaller regional scales. This program also prioritizes open and transparent methods for reproducible research, sharing code and providing training and support for independent groups interested in leading their own OHI assessments.
- We have partnered with Microsoft AI for Earth to investigate the potential of applying artificial intelligence to ecosystem assessments with the goal to identify opportunities that can help accelerate progress on ambitious goals for planetary health, such as the United States' 30 by 30 initiative to protect 30 percent of its lands and oceans by 2030 and the United Nations' Decade on Ecosystem Restoration, seeking to restore the world's ecosystems to reach Sustainable Development Goals by 2030.
- In partnership with UCSB's Bren School of Environmental Science and Management we host the new Master of Environmental Data Science (MEDS) Program, a degree program preparing students for a career advancing solutions to environmental problems through data science.

We also create innovative solutions for managing and analyzing environmental data, such as the following:

- Through our KNB Data Repository, we make thousands of environmental datasets – generated at NCEAS and elsewhere – publicly available for free allowing researchers to store their own data and access data from thousands of others, ultimately making science more transparent and reproducible.
- In partnership with DataONE and NOAA's National Center for Environmental Information, we run the Arctic Data Center to make available all data, software, and other research products associated with NSF-funded science in the Arctic for the sake of reproducibility.

Finally, we train early career and established researchers from around the world in best practices for open science and data management, especially with an application to synthesis research. Examples of this work include the following:

- Our Learning Hub is our knowledge-sharing community where, through trainings and resources, environmental researchers can learn the latest data science skills and technologies, enabling their science to inform solutions more quickly and effectively.

- We serve as a host institution for postdoctoral researchers, which typically support working groups, giving them experience coordinating research teams and designing their own synthesis research projects.
- We operate a mentorship program called Openscapes, which encourages early career researchers to establish best practices in and a culture around collaboration and open science in their labs.

NCEAS operates in downtown Santa Barbara in a facility that provides visiting researchers the physical and mental space for creativity and collaboration – important ingredients that foster the level of scientific output for which NCEAS is known. At the same time, NCEAS maintains strong ties to campus. Many working groups include UCSB faculty or researchers, and we employ and train a large cadre of UCSB graduate students in data management, scientific programming, and science communications.

In addition, the Center supports a community of resident researchers that concentrate on synthesis science or the development of computational approaches and tools to support synthesis science. NCEAS staff provides logistical and technical support, training, and outreach services to increase the productivity and impact of our researchers and working groups.

EXECUTIVE SUMMARY

The last year has been one of transition, new beginnings, and incredible growth for NCEAS. One of our most notable transitions has been our move to a new building in downtown Santa Barbara after 25 years in our previous home. Thanks to the support of UCSB and the Office of Research we were able to find and renovate an amazing new facility, giving us the unique opportunity to design spaces specifically to meet our mission. We tapped into our deep experience facilitating group science to focus the renovation on making our new home conducive to big-picture thinking and teamwork for resident researchers and those who visit us for working groups, workshops, and trainings. Highlights of the new building include a large central meeting area, upon which most offices open, creating a nucleus of activity and allowing staff and visitors to get to anyone easily, as well as flexible working space with nooks for smaller group-work designed into it. The new space also offers as much outdoor communal space as indoor space, and hosts the exciting new Masters of Environmental Data Science program NCEAS in partnership with the Bren School of Environmental Science and Management. The new building has been quite a wonderful transition for NCEAS at this point in our history and it is perhaps apropos that we opened our new doors as we emerged from the COVID 19 pandemic and began inviting working groups, a new cohort of Master's students, and our resident community back to convene in person.

While the COVID 19 pandemic has challenged NCEAS, and indeed the whole of science, in new and unprecedented ways, it also gave NCEAS an opportunity to enhance and diversify how we operate and who we support. Our transition to virtual -- and now hybrid -- collaboration has meant an explosion of creativity and productivity within our NCEAS community and how we engage and support science. We have continued to hone our skills nurturing innovative collaboration solutions for learning, mentoring, collaboration, and skills development. Notably, we transitioned our planned in-person, NSF funded Future of Synthesis Summit in February 2021 to the virtual environment to great success. Over the course of this workshop we successfully hosted over 120 participants who then worked together to produce a peer reviewed paper submitted the journal of Frontiers in Ecology and the Environment. We also successfully hosted multiple 5-day virtual courses on reproducible research techniques and an array of other trainings for our working groups and residents, from science communication to team science and facilitation. Our broader scientific initiatives continue to thrive, producing ground-breaking science, and our focus on diversifying representation in science has never been stronger. I believe we will enter the new year stronger and more aware of how we can continue to provide leadership within and beyond our disciplines, helping to further advance scientific frontiers and build a world in which people and nature thrive.

This past year NCEAS was granted over six million dollars in awards and administered over 50 different funded programs. Together the center produced over 60 publications and received national and international media attention for our groundbreaking synthesis science and data science training. This year marked the 26th year of leadership in synthesis science, learning, and informatics at NCEAS.

Our scientific working groups and resident scientists led numerous advances and publications this year, spanning diverse and broad-ranging topics. For example, Our LTER Soil Organic Matter synthesis group has made some groundbreaking discoveries and progress towards understanding the dynamics that drive the persistence and turnover of soil organic matter, which contains two- to three-times the amount of carbon (C) as the atmosphere and terrestrial vegetation combined. This year the group not only created the SoDaH: the SOils DAta Harmonization database, an open-source synthesis of soil data from research networks, but were able to use this database to produce two high impact publications identifying productivity and temperature as controls on soil organic matter processing in key biomes (Georgiou et al. *Biogeochemisty Letters*, July 2021) and best practices for researchers who may collect organic matter data in the course of other research that would greatly improve the value of their data for modeling -- with only modest additional effort on their part (Billings et al. *Ecological Applications,* January 2021). The LTER network also produced a special issue in the journal Ecosphere entitled 'Forecasting Earth's Ecosystems with Long-Term Ecological Research', which highlights the importance of LTER research in the effort to understand mechanisms that aren't easily addressed by short-term studies, such as time lags, cascading effects, resilience, connectivity and ecosystem state change.

Our Cell-based Seafood team produced a suite of papers examining the "long and narrow path" for seafood to reduce fishing pressure in the ocean over the course of the last year, including a summary paper (Halpern et al. *Fish and Fisheries*, February 2021) outlining the technological, behavioral, market and ecological changes that must occur in order to achieve a conservation benefit, concluding that fisheries recoveries and collateral ocean benefits are unlikely to result from cell- based seafood technology. This team also found that novel seafood products may simply add to rather than displace the environmental impacts of human food production (Cottrell et al. *Fish and Fisheries,* April 2021). Our Conservation Aquaculture Research Team further contributed to the incredible productivity in food systems research, with five studies highlighting the opportunities to leverage the vast diversity of aquatic, or "blue," foods in the coming decades to address malnutrition, lower the environmental footprint of the food system, and provide livelihoods (Golden et al. Gephart et al., Naylor et al., Tigchelaar et al., Short et al., *Nature*, September 2021).

Our diverse set of partnerships continue to make significant progress towards our shared NCEAS mission and substantial contributions to the scientific and informatics communities:

- The **LTER Network Office (LNO)** is the hub of scientific synthesis, education, and outreach activities for the Long Term Ecological Research Network, which links 28 NSF-funded research programs and over 2000 researchers working in every major U.S. biome. In 2021, the Network Office focused on improving virtual interactions across this widely distributed network. Synthesis working groups were unable to meet in person, so the Office scaled up support for long distance collaboration -- expanding training on reproducible research tools and adding virtual facilitation support. COVID has also spurred improvements in communication and transparency among the Network's array of committees and ad hoc interest groups. The first virtual meeting of the LTER Science

Council occurred this year and made a series of 28 5-minute site talks--focused on upcoming research--accessible to a public audience.

- This year marked the tenth annual global **Ocean Health Index** assessment. In anticipation of this anniversary, the OHI team overhauled many of the data sources and models used to calculate scores, greatly improving estimates of ocean health. The project will also unveil a new website at the end of 2021 that allows viewers to easily explore how OHI scores have changed throughout time, which is becoming increasingly useful with each year of data. OHI is an exemplar of open data science, making all data and processing scripts readily available to researchers, and in partnership with ESRI disseminate OHI scores through the Living Atlas.
- The new **Masters of Environmental Data Science (MEDS)** degree at UCSB, a partnership between NCEAS and the Bren School, successfully launched in August 2021. NCEAS was instrumental in the development of this program and is delighted to host the first cohort of 25 diverse and highly engaged students.
- Our partnership with **Microsoft's AI for Earth** program has made great progress this year as we break new scientific ground investigating the potential of applying artificial intelligence to ecosystem assessments. This year we hosted a team of diverse expert scientists and practitioners to develop strategies for how the expansive community of conservation AI stakeholders (including technology companies, research scientists, government agencies, conservation NGOs, and philanthropic organizations) can best collaborate to make these advancements and generate innovative solutions.
- Our new partnerships this year with the **Bureau of Ocean Energy Management (BOEM)**, **National Geographic**, and the **California Ocean Protection Council** made significant progress over the last year. Notably, the BOEM Seabirds and Wind Energy working group is exploring how wind energy development off-shore from California can be best designed to avoid impacts on seabird populations, and is applying lessons learned from research into similar development activities in northeastern US and Europe. While our work with the California Ocean Protection Council and California Department of Fish & Wildlife is helping to inform and refine Marine Protected Area (MPA) design criteria established during the creation of California's MPA network.
- Over the last year, **DataONE** grew as a network, adding new repository members (e.g., Hydroshare, the California Ocean Protection Council, the Atmospheric Radiation Monitoring Archive from the Department of Energy, and the Netherlands Polar Data Center, among others). We introduced new capabilities for researchers to create custom data portals for data collections that span repositories, showcased through sites like the Toolik Field Station portal and the State of Alaska's Salmon and People portal. In addition to data portals, DataONE began diversifying our service offerings, including a new Hosted Repository service where DataONE can efficiently operate a data repository on behalf of other projects and organizations -- two repositories are operating in this mode, including the California Ocean Protection Council Repository and Dangermond Preserve Repository.
- The NSF-funded **Arctic Data Center** was renewed for an additional 5 years of operations to serve the data and software preservation needs of the Arctic research

community. Growth in the archive continues to accelerate (growing by tens of terabytes in size each year), and the Center has begun tackling new disciplinary challenges, such as better support services for social science research, and for handling sensitive data submissions. New data submission features have been added to improve data discovery, and we worked extensively with collaborators who are helping us to build the Permafrost Discovery Gateway with high-resolution geospatial features showing sub-meter permafrost features at global extents. The Arctic Data Center also sponsored 8 Data Science Fellows, who worked on diverse data projects spanning the Arctic while learning new data science skills and approaches, and we taught a week-long intensive short course on Reproducible Research in R for Arctic researchers.

- The **SeaSketch** team has made great strides in creating the next, free and open source version of SeaSketch. Most significantly, they developed and published a seRverless geoprocessing framework for analyzing map data quickly and at scale as part of a collaborative spatial planning process using SeaSketch. Practically speaking, that means that partners in Marine Spatial Planning (currently in The Maldives, Federated States of Micronesia (FSM), Azores, Bermuda, Samoa and Canada) will be able to sketch and analyze prospective zones, like Marine Protected Areas, at low or no cost and in perpetuity. This is a real technical breakthrough.

The NCEAS Learning Hub continued to grow and advance over the last year, creating new curricula, courses, and partnerships. Our Learning Hub for environmental data science aims to build a knowledge-sharing and skills-building community where environmental researchers can learn the latest data science skills and technologies. This year we not only continued to offer all of our courses in the virtual environment, from our flagship five-day short course to individualized support for our working groups, but we also expanded our reach into new areas. This year our Learning Hub partnered with the National Ecological Observation Network (NEON) to develop virtual onboarding resources geared to support researchers beginning their postdoctoral work with NEON, and it can be easily adapted for early career researchers (ECRs) entering other roles. The premise, woven throughout the sections and modules, is that developing good data science skills enables ECRs to maximize productivity, share data effectively and efficiently, and benefit from others in the scientific community using their data. We also partnered with Stanford's Center for Ocean Solutions to develop a self-directed online data science and science communications training series using Tableau data visualization software. The modules in this training series have been designed to be immediately supportive of colleagues at the Palau International Coral Reef Center (PICRC), while being made open and available to non-PICRC researchers and practitioners, giving us the opportunity to expand the types of learning materials and support we can offer to diverse audiences into the future.

NCEAS has continued to center significant efforts around Diversity, Equity, and Inclusion (DEI) over the past year. Seventeen of our NCEAS residents participated in a transformational 16-week program aimed at deepening the science community's knowledge of the effects of racism on the participation and retention of Black, Brown, and Indigenous people in Geoscience called Unlearning Racism in Geosciences (URGE). Over this time our NCEAS URGE Pod produced eight deliverables ranging from a complaints and reporting policy to a safety

plan and resource map, all aimed at furthering our efforts to unlearn racism and increase diversity, equity, inclusion, and belonging at NCEAS and across the scientific community. This effort ultimately contributed to an update to our existing Strategic Plan for Diversity, Equity, and Inclusion, a significant overhaul and improvement to our existing Code of Conduct, as well as adaption and formalization of our hiring process to encourage increased diversity across our staff and scientists. We also significantly updated our Welcome Website to include new and expanding resources to support a diversity of people coming to NCEAS to work in residence or as part of a working group. We also hosted an extremely well-attended virtual seminar series this year entitled 'Advancing Ecology and Environmental Data Science for a More Just and Equitable Future' where speakers shared their research approaches and findings as they relate to the intersections of ecology, environmental data science, equity, and environmental justice. This seminar series was the best attended of any hosted on campus this year and the individual talk recordings have continued to garner much attention.

Five-Year Projection Update

Overall, our five-year plan has not changed, and I am pleased to highlight additional milestones that showcase our progress:

- While working groups were not able to meet in-person this year due to the COVID pandemic, we are maintaining a robust portfolio of 15 groups that were able to meet virtually with the support of our NCEAS staff.
- Our resident postdoc community included 11 members, with additional members joining in the coming months. This vibrant community of early career researchers is a fundamental part of the identity, creativity, and productivity of NCEAS and we are excited to see it grow and expand in both number and disciplinary focus.
- The National Science Foundation (NSF) has reaffirmed its commitment to data archiving and sharing in the Arctic by investing $6 million to continue funding the Arctic Data Center, for an additional five years, a great and well-deserved accomplishment for the program. The Center plans to increase capacity to support big data from satellites, remotely operated aircraft, and sensor networks over the next five years.
- NCEAS continues to be a leader in the support and development of the burgeoning field of Environmental Data Science (EDS), most recently by receiving a prestigious 5-year grant from the National Science Foundation to found and nurture an Environmental Data Science Research Coordination Network (RCN) aimed at diversifying and growing the EDS field. We will be hosting over 100 guests in person at our first annual symposium of the network in February of 2022 under the theme of Harnessing Diversity in Environmental Data Science.
- We continue to engage and nurture ongoing and strong partnerships with international conservation organizations, including The Nature Conservancy, The Dangermond Preserve and Point Conception Institute, the Wildlife Conservation Society and Conservation International.
- NCEAS wrapped up its participation in the SNAPP partnership and is proud of the excellent research and important impacts of all of SNAPP's completed and active

working groups. NCEAS helped SNAPP's newest teams launch in early 2021, including Advancing Coastal Defenses, BRI Biodiversity Toolkit, Improving Coastal Health, Natural Resource Governance, and Wildlife Corridor Restoration.

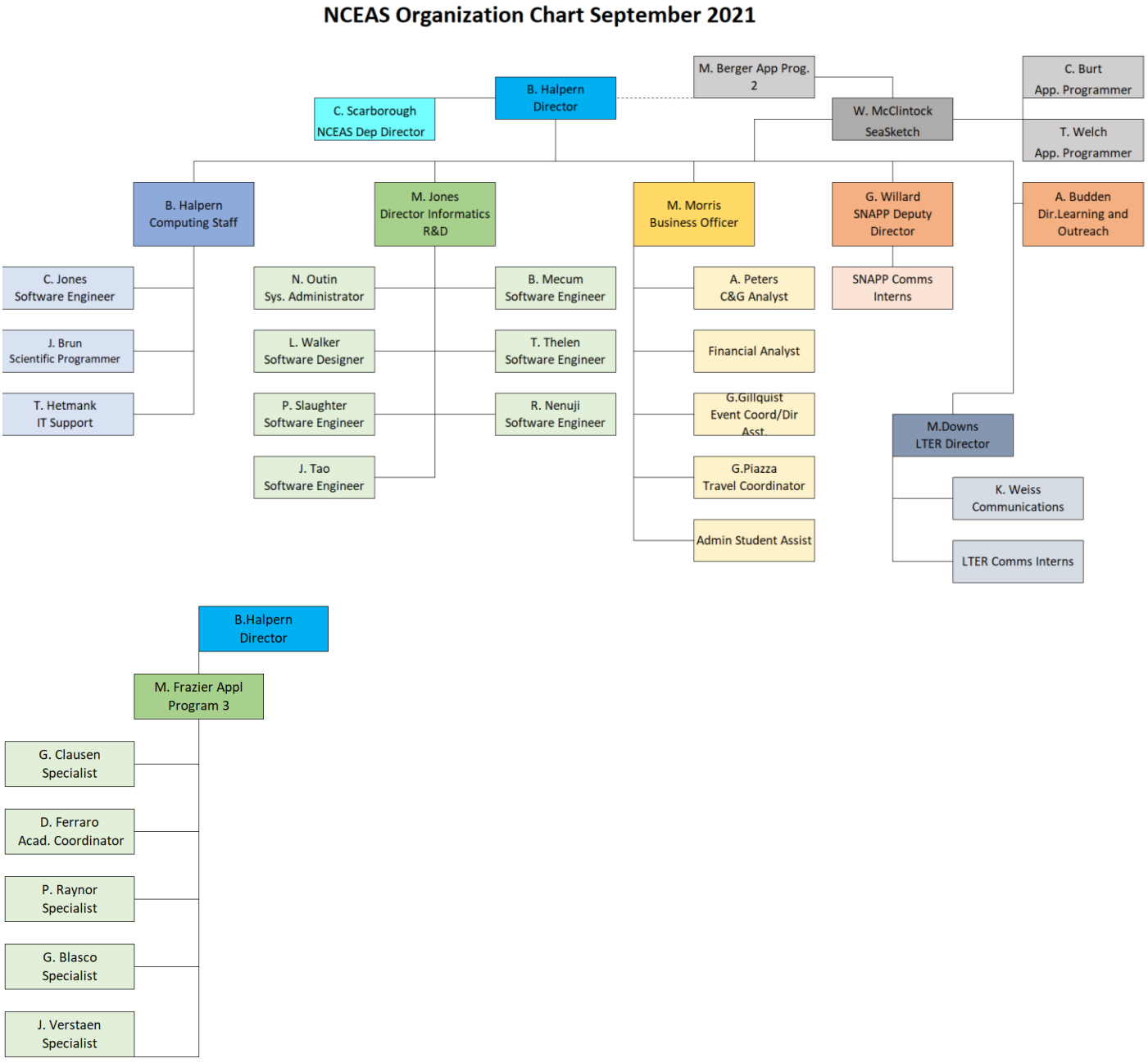
- Our Openscapes mentoring program was awarded a 3-year $900,000 NASA award to develop the NASA-Openscapes framework to help researchers transition workflows to the Cloud, and is also a part of broader NASA open source science initiatives. Additionally, Openscapes co-directors Julia Lowndes (NCEAS) and Erin Robinson (Metadata Game Changers) led six Champions cohort series in 2021, and have now mentored 56 research teams (~280 individual faculty, program leads, researchers, students) from academia, government, tribal groups, and nonprofits. A big focus this year was strengthening efforts to promote inclusion and sustainable growth by partnering with diversity, equity, and inclusion experts and focusing on onboarding new mentors.
- We have added an additional member to our Director's Council, which continues to be actively engaged in helping us further the science and mission of NCEAS. Members of the Council met as a group virtually twice this year and many have met in-person at our new facility. We continue to seek additional members who will serve to help NCEAS with high-impact development and fundraising efforts, and potentially contribute to our strategic direction.

My sixth year as Director of NCEAS has been one of incredible growth, transition, and rebirth. I could not be more proud of what our community has accomplished over the last year. As I reflect on the last twelve months and look to the coming year I remain immensely grateful and energized to be leading such a remarkable research unit. The diversity and impact of our science coupled with the leadership role we are taking in the synthesis science and data science communities remains unrivaled. I would especially like to thank the Office of Research for its deep commitment to NCEAS, and all of our partners and funders in these endeavors, including the Zegar Family Foundation, the Gordon and Betty Moore Foundation, the David and Lucile Packard Foundation, the National Philanthropic Trust, the National Science Foundation, the Waitt Foundation, Conservation International, Microsoft, National Geographic, BOEM, our partners at The Nature Conservancy and the Wildlife Conservation Society, and our many other for their support. I also want to acknowledge and thank the State of California and the leadership of UC Santa Barbara for their continued support of and commitment to NCEAS.

Ben Halpern, Executive Director
National Center for Ecological Analysis and Synthesis (NCEAS)

PEOPLE OF NCEAS

ORGANIZATION CHART



ADVISORY COMMITTEE

- Cherie Briggs, Committee Chair, EEMB
- Kelly Caylor, Geography, Bren
- Krzysztof Janowicz, Geography
- Kyle Lewis, Technology Management Program
- Marko Peljhan, Media Arts and Technology
- Leah Stokes, Political Science
- Rich Wolski, Computer Science

Ex-Officio Members:

- Ben Halpern, Director, NCEAS

ADMINISTRATIVE STAFF

- Michelle Morris, Business Officer
- Courtney Scarborough, Deputy Director
- Ana Peters, Contracts & Grants Analyst
- Anthony Castillo, Financial Analyst
- Ginger Gillquist, Event Coordinator/Director's Assistant
- Gabriella Piazza, Travel Coordinator

TECHNICAL STAFF

- Madeline Berger, Analyst
- Jenna Braun, Analyst
- Julien Brun, Scientific Programmer
- Chad Burt, Applications Programer
- Melanie Frazier, Scientific Programmer
- Thomas Hetmank, Programmer/Analyst
- Chris Jones, Software Engineer
- Matt Jones, Director of Research & Development NCEAS Data Science
- Jasmin Lai, Data Systems Analyst
- Bryce Mecum, Science Software Engineer
- Dominic Mullen, Data Systems Analyst
- Neil Nathan, Analyst
- Rushiraj Nenuji, Software Engineer
- Nicolas Outin, System Administrator
- Mark Schildhauer, Center Associate
- Peter Slaughter, Software Engineer
- Jing Tao, Software Engineer
- Thomas Thelen, Software Engineer

- Lauren Walker, Software Designer
- Tim Welch, Software Engineer
- Daniel Yocum, Applications Programmer

ALL OTHER STAFF

Academic Coordinators

- Amber Budden, Director of the Learning Hub (NCEAS)
- Gage Clawson, Ocean Health Index (NCEAS)
- Michaela Clemence, EmLab (Bren School)
- Marty Downs, Deputy Director (LTER NCO)
- Francisco Guerrero-Bolano, COMPASS Communications Liaison
- Heather Lahr, Project Coordinator (NCEAS/EmLab)
- Erin McClean, Arctic Data Center Outreach Coordinator
- Kristen Weiss, Communications Coordinator (LTER NCO)
- Geoff Willard, Deputy Director (SNAPP)

Specialists

- Chris Belt, Assistant Specialist
- Susan Clark, Associate Specialist
- Annie Colgan, Assistant Specialist
- Samantha Csik, Assistant Specialist
- Juliette Verstaen, Assistant Specialist
- Danielle Ferraro, Associate Specialist
- Tess Hooper, Assistant Specialist
- Wai-Yin Kwan, Assistant Specialist
- Gavin McDonald, Associate Specialist
- Katherine Millage, Associate Specialist
- Jamie Montgomery, Associate Specialist
- Sarah Erickson, Jr. Specialist
- Paul-Eric Rayner, Jr. Specialist
- Maya Samet, Jr. Specialist
- Gordon Blasco, Jr. Specialist
- Kristen Peach, Jr. Specialist

Researchers

- Jennifer Caselle, Researcher
- Chris Costello, Researcher
- Frank Davis, Researcher

- Olivier Deschenes, Researcher
- Jeff Dozier, Researcher
- Halley Froehlich, Researcher
- Carrie Kappel, Researcher
- Chris Lortie, Researcher
- Andrew Plantiga, Researcher

Project Scientists

- Julia Lowndes, Associate Project Scientist
- Will McClintock, Assistant Project Scientist

STATISTICAL SUMMARY

UC SANTA BARBARA
Research Division
Statistical Summary

Department:	NCEAS	
Fiscal Year:	2020-2021	
Personnel engaged in research (head count):		
Faculty		6
Professional Researchers *(including Visiting)*		4
Project Scientists		2
Academic Coordinators		9
Specialists		16
Postdoctoral Scholars		11
Postgraduate Researchers		0
Graduate Students		12
Undergraduate Students		8
Technical & Research Staff		2
	Total	70
Participation from outside UCSB (head count): (optional)		
Academics (without Salary Academic Visitors)		
Other (working group participants)		518
	Total	518
Unit Operational Staff (# of FTE):		
Administrative		7
Computing		18
Technical & Service *(e.g. recharge personnel, lab manager)*		0
Programmatic Staff		0
	Total	25
Sponsored Research:		
Number of Principal Investigators*		5

Proposals submitted (#)		15
Proposals submitted ($ value)		11,423,404
Awards issued (#)		19
Awards issued ($ value)		6,604,501
Extramural awards administered during year (#)**		43
Extramural awards administered during year ($ value)***		6,604,501
Costshare funds managed during year ($ value)**		
Awarding agencies dealt with (#)****		11
Other Projects & Progams:		
Seminars, symposia, workshops sponsored (#)		28
Other projects administered (#)****		14
Other projects administered ($ value)*****		618,212.32
Intramural support administered ($ value)**		469,200
Budget & Space:		
Total base budget for the year		539,318
Total assigned square footage in ORU		14,302

PRINCIPAL INVESTIGATORS

Amber Budden	Center Associate	National Center for Ecological Analysis and Synthesis
Jennifer Caselle	Associate Research Biologist	Marine Science Institute
Chris Costello	Professor	Bren School
Frank Davis	LTER Network Office Executive Director	National Center for Ecological Analysis and Synthesis
Olivier Deschenes	Professor	Economics
Marty Downs	LTER Network Office Director	National Center for Ecological Analysis and Synthesis
Jeff Dozier	Professor	Bren School
Halley Froehlich	Professor	Environmental Studies

Benjamin Halpern	Professor	Bren School
Andrew Plantiga	Professor	Bren School
Matthew Jones	Director of Informatics, Research, and Development	National Center for Ecological Analysis and Synthesis
Carrie Kappel	Researcher	National Center for Ecological Analysis and Synthesis
Christopher Lortie	Researcher	National Center for Ecological Analysis and Synthesis
Julia Stewart Lowndes	Project Scientist	National Center for Ecological Analysis and Synthesis
William McClintock	Project Scientist	Marine Science Institute
Mark Schildhauer	CNT V	National Center for Ecological Analysis and Synthesis

POSTDOCTORAL FELLOWS, GRADUATE AND UNDERGRADUATE STUDENTS

Postdoctoral Fellows

- Rich Cottrell
- Michael Eggen
- Caitlin Fong
- Whitney Friedman
- Kaitlyn Gaynor
- Jose Giron Nava
- Caitlin Kuempel
- Anoush Missirian
- April Ridlon
- Erin Satterthwaite
- Marcus Thomson
- Michael Weir

Graduate Students

- Ian Brunjes
- Sindey Gerst
- Laura Ingulsrud

- Maggie Klope
- Sara Orofino
- Robert Saldivar
- Juan Carlos Villasenor-Derbez
- Claire Gonzales
- Jason Maier
- Casey O'Hara
- Zoe Welch

Undergraduate Students

- Angel Chen
- Julia di Lena
- Erika Egg
- Kelsey Fennell
- Nathan Hwangbo
- Nisha Jagota
- Melanie Leung
- Vivian McGowan
- Kelly Wang

EXTERNAL PARTICIPATION

ACTIVITY	FIRST	LAST NAME	INSTITUTION
California MPA Network Decadal Assessment	Kerry	Nickols	California State University, Northridge
	Joachim	Claudet	Centre National de la Recherche Scientifique (CNRS)
	David	Gill	Duke University
	Laurence	McCook	James Cook University
	Shelby	Zeigler	San Jose State University
	Rosa	Laucci	Tolowa Dee-ni' Nation
	David	Mouillot	Université de Montpellier II
	Rick	Starr	University of California Sea Grant Extension Program
	Clarissa	Anderson	University of California, San Diego
	Mark	Carr	University of California, Santa Cruz
	Peter	Raimondi	University of California, Santa Cruz
	Kristin	Kaschner	University of Freiburg
	John	Lynham	University of Hawaii, Manoa
	Heather	Leslie	University of Maine
	Tessa	Francis	University of Washington, Tacoma

DataONE Training	Laureano	Gherardi	Arizona State University
	Jalene	LaMontagne	Asian University for Women
	Nicholas	Rasmussen	California Department of Water Resources
	Brett	Harvey	California Department of Water Resources
	Katherine	Nigro	Colorado State University
	Julia	Masterman	Consortium of Universities for the Advancement of Hydrologic Science, Inc. (CUAHSI)
	Rebecca	Clement	George Washington University
	Haikun	Xu	Inter-American Tropical Tuna Commission
	Anny	Chung	University of Georgia
	Jason	Tallant	University of Michigan
	Maria Cristina	Portales-Reyes	University of Minnesota
Reproducible Research Techniques for Synthesis	Laureano	Gherardi	Arizona State University
	Kate	Wilkins	Colorado State University
	Simone	Passarelli	Harvard University
	Sreejata	Bandopadhyay	Michigan State University
	Stephen	Formel	Tulane University
	Peter	Wilfahrt	University of Bayreuth
	Colette	Wabnitz	University of British Columbia
	Kate	Newcomer	University of Massachusetts, Amherst
	Timothy	Ohlert	University of New Mexico
	Therese	Burns	US Fish and Wildlife Service (FWS)
	Kathijo	Jankowski	US Geological Survey (USGS)
	Timothy	Counihan	US Geological Survey (USGS) Western Fisheries Research Center
	Martin	Holdrege	Utah State University
FItBiTs	Ehsan	Dulloo	Bioversity International
	Delphine	Renard	Centre d'Ecologie Fonctionnelle et Evolutive-CEFE
	Noelia	Zafra-Calvo	Future Earth
	Andy	Purvis	Imperial College, London, Silwood Park Campus
	Thomas	Mueller	Senckenberg Naturmuseum Frankfurt
	Rebecca	Chaplin Kramer	Stanford University
	Sandra	Diaz	Universidad Nacional de Córdoba, CONICET
	Lucas	Garibaldi	Universidad Nacional de Rio Negro
	Victoria	Reyes-Garcia	Universitat Autonoma de Barcelona
	Sandra	Lavorel	Université J. Fourier, Grenoble I
	Jason	Tylianakis	University of Canterbury
	Lynne	Shannon	University of Cape Town
	Jesus	Pinto-Ledezma	University of Minnesota
	Jeannine	Cavender-Bares	University of Minnesota, Twin Cities
	Rodrigo	Camara-Leret	University of Zurich
	Peter	Verburg	Vrije Universiteit Amsterdam
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	Katherine	Nigro	Colorado State University

	Walt	Koenig	Cornell University
	Jalene	LaMontagne	DePaul University
	Jessica	Barton	DePaul University
	Bala	Chaudhary	DePaul University
	Ian	Pearse	Fort Collins Science Center, USGS
	David	Greene	Humboldt State University
	Akiko	Satake	Kyushu University
	Rebecca	Snell	Ohio University
	Mark	Schulze	Oregon State University
	Thomas	Miller	Rice University
	Elizabeth	Crone	Tufts University
	Inés	Ibañez	University of Michigan
	Diana	Macias	University of New Mexico
	Penelope	Holland	University of York
LTER: EMERGENT	William	Rodriguez-Reillo	Harvard Medical School
	Emery	Boose	Harvard University
	Adina	Howe	Iowa State University
	Emiley	Eloe-Fadrosh	Lawrence Berkeley National Laboratory
	Jennifer	Pett-Ridge	Lawrence Livermore National Laboratory
	Sarah	Evans	Michigan State University
	Heather	Kittredge	Michigan State University
	Ashley	Shade	Michigan State University
	Sreejata	Bandopadhyay	Michigan State University
	Lee	Stanish	National Ecological Observatory Network, Inc. (NEON)
	Kate	Lajtha	Oregon State University
	David	Myrold	Oregon State University
	Janet	Jansson	Pacific Northwest National Laboratory
	Jason	McDermott	Pacific Northwest National Laboratory
	Dawson	Fairbanks	University of Arizona
	Rachel	Gallery	University of Arizona
	Jorge	Rodrigues	University of California, Davis
	Steven	Allison	University of California, Irvine
	Jeffrey	Blanchard	University of Massachusetts, Amherst
	Kate	Newcomer	University of Massachusetts, Amherst
	Blander	Dvir	University of Massachusetts, Amherst
	Linda	Kinkel	University of Minnesota
	Cristina	Takacs-Vesbach	University of New Mexico
	Kristin	Vanderbilt	University of New Mexico
LTER Transitions	Laureano	Gherardi	Arizona State University
	Kate	Meyer	Carleton College
	Beatriz	Aguirre	Cornell University
	Lukas	Bell-Dereske	Michigan State University
	Tadashi	Fukami	Stanford University
	Joan	Dudney	University of California, Berkeley
	Katharine	Suding	University of Colorado, Boulder
	Anny	Chung	University of Georgia
	Megan	Wilcots	University of Minnesota

	Hanan	Farah	University of Minnesota
	Forest	Isbell	University of Minnesota
	Maria Cristina	Portales-Reyes	University of Minnesota
	Jennifer	Rudgers	University of New Mexico
	Lauren	Hallett	University of Oregon
	Carmen	Ebel	University of Oregon
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LTER Drought Global Synthesis	Independent Affiliation	Independent Affiliation	NULL
	Independent Affiliation	Independent Affiliation	NULL
BOEM Seabird and Wind Energy working group	Brad	Keitt	American Bird Conservancy
	Kate	Williams	Biodiversity Research Institute
	M. Wing	Goodale	Biodiversity Research Institute
	Aonghais	Cook	British Trust for Ornithology
	Astrid	Potiek	Bureau Waardenburg BV
	Matthew	McKown	Conservation Metrics
	Stefan	Garthe	Kiel University
	Scott	Hall	National Fish and Wildlife Foundation
	Jeffery	Leirness	National Oceanic and Atmospheric Administration (NOAA)
	Donald	Lyons	Oregon State University
	Eric	VanderWerf	Pacific Rim Conservation
	R. Cotton	Rockwood	Point Blue Conservation Science
	Josh	Adams	U.S. Geological Survey
	Kate	Searle	UK Centre for Ecology & Hydrology
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	Bernie	Tershy	University of California, Santa Cruz
	Don	Croll	University of California, Santa Cruz
	Roberta	Swift	US Fish and Wildlife Service (FWS)
	Emily	Kelsey	US Geological Survey (USGS)
	M. Timothy	Tinker	US Geological Survey (USGS) Santa Cruz Field Station
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	Miranda	Redmond	Colorado State University
	Katherine	Nigro	Colorado State University
	Irene	Ramos	Comisión Nacional para el Conocimiento y Uso de la Biodiversidad (CONABIO)
	Jalene	LaMontagne	DePaul University
	Diogo	Provete	Federal University of Mato Grosso do Sul
	Norah	Brown	Fisheries and Oceans Canada
	Alyssa	Miguez	Florida International University
	Arildo	Dias	Goethe Univserity of Frankfurt
	Dominique	Pelletier	Institut Francais de Recherche pour l'exploitation de la Mer
	Tamar	Guy-Haim	Israel Oceanographic and Limnological Research Institute (IOLR)

	Barbora	Winterova	Masaryk University
	Jake	Lawlor	McGill University
	Nan	Nourn	Michigan State University
	Lukas	Bell-Dereske	Michigan State University
	Bala	Chaudhary	Northern Arizona University
	Rebecca	Snell	Ohio University
	Sarah	Cohen	San Francisco State University
	Paula	Pappalardo	Smithsonian National Museum of Natural History
	Alexa	Fredston-Hermann	State University of New Jersey, Rutgers
	Marina	Wolowski	Universidade Estadual de Campinas (UNICAMP)
	Tamara	Harms	University of Alaska, Fairbanks
	Ryan	Peek	University of California, Davis
	Anil	Koirala	University of Georgia
	Chloe	Schmidt	University of Manitoba
	Colin	Garroway	University of Manitoba
	Inés	Ibañez	University of Michigan
	Maria Cristina	Portales-Reyes	University of Minnesota
	Maria Cristina	Portales-Reyes	University of Minnesota
	Carmen	Ebel	University of Oregon
	Ignacio	Diaz-Maroto	University of Santiago de Compostela
	Penelope	Holland	University of York
	Jessica	Burnett	US Geological Survey (USGS)
Openscapes-NASA Software Carpentry Workshop	Jake	Szamosi	McMaster University
	Makhan	Virdi	National Aeronautics and Space Administration (NASA)
	Bia	Villas Boas	University of California, San Diego
	Negin	Valizadegan	University of Illinois
Arctic Data Center Training	Anna	Abramova	California State University, Long Beach
	Jeremy	May	Florida International University
	Yana	Bebieva	Florida State University
	Brian	Izbicki	Northern Arizona University
	Natasha	Griffin	Oregon State University
	Tatiana	Williford	Texas A and M University
	Lisa	Druckenmiller	University of Alaska, Anchorage
	Rebecca	Shaftel	University of Alaska, Anchorage
	Bernard	Coakley	University of Alaska, Fairbanks
	Peter	Ungar	University of Arkansas
	Ruby	An	University of Chicago
	Walter	Meier	University of Colorado, Boulder
	Sarah	Crump	University of Colorado, Boulder
	François	LaPointe	University of Massachusetts, Amherst
	Merritt	Harlan	University of Massachusetts, Amherst
	Connor	Burgin	University of New Mexico
	Everett	Lasher	University of Pittsburgh
	Robina	Shaheen	University of San Diego

	Annie	Bourbonnais	University of South Carolina
	Ryan	Cody	University of Texas, El Paso
	Darcy	Peter	Woods Hole Oceanographic Institution
SNAPP: Board of Directors	Ruth	DeFries	Columbia University
	Ruth	DeFries	Columbia University
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	Jensen	Montambault	The Nature Conservancy
	Molly	Wallace	The Nature Conservancy
	Michael	Sweeney	The Nature Conservancy
	Jensen	Montambault	The Nature Conservancy
	Erin	Zielinski	The Nature Conservancy
	Jennifer	Morris	The Nature Conservancy
	Adriana	Dinu	United Nations Development Programme
	Adriana	Dinu	United Nations Development Programme
	Hugh	Possingham	University of Queensland
	Hugh	Possingham	University of Queensland
	John	Robinson	Wildlife Conservation Society
	Cristian	Samper	Wildlife Conservation Society
	Ward	Woods	Wildlife Conservation Society
	John	Robinson	Wildlife Conservation Society
	Cristian	Samper	Wildlife Conservation Society
	Harry	Hagey	
	Harry	Hagey	
SNAPP collaboration training workshops	Basilia	Shivute	Integrated Rural Development and Nature Conservation (IRDNC)
	Basilia	Shivute	Integrated Rural Development and Nature Conservation (IRDNC)
	Li	Xia	Ministry of Ecology and Environment
	Marion	Pfeifer	Newcastle University
	Stephen	Rushton	Newcastle University
	Marion	Pfeifer	Newcastle University
	Stephen	Rushton	Newcastle University
	Erica	Reider	North Carolina State University
	Erica	Reider	North Carolina State University
	Deo	Shirima	Norwegian University of Life Sciences
	Deo	Shirima	Norwegian University of Life Sciences
	Trevor	Jones	Southern Tanzania Elephant Program
	Trevor	Jones	Southern Tanzania Elephant Program
	Xia	Li	Stanford University
	Michael	Beck	The Nature Conservancy
	Stephanie	Wear	The Nature Conservancy
	Stephanie	Wear	The Nature Conservancy
	Michael	Beck	The Nature Conservancy
	Jos	Hill	The Pew Charitable Trusts
	Jos	Hill	The Pew Charitable Trusts
	Jessica	Kendall-Bar	University of California, Santa Cruz
	Jessica	Kendall-Bar	University of California, Santa Cruz
	Susannah	Sallu	University of Leeds
	Susannah	Sallu	University of Leeds
	Amelia	Wenger	University of Queensland

	Phoebe	Stewart-Sinclair	University of Queensland
	Phoebe	Stewart-Sinclair	University of Queensland
	Amelia	Wenger	University of Queensland
	Zulema	Lehm	Wildlife Conservation Society
	Aili	Kang	Wildlife Conservation Society
	Liwei	Chen	Wildlife Conservation Society
	Raymond	Victurine	Wildlife Conservation Society
	David	Wilkie	Wildlife Conservation Society
	Aili	Kang	Wildlife Conservation Society
	Zulema	Lehm	Wildlife Conservation Society
	Raymond	Victurine	Wildlife Conservation Society
	David	Wilkie	Wildlife Conservation Society
	Liwei	Chen	Wildlife Conservation Society
SNAPP: Wild Camelid Mange	Brandie	Fariss	The Nature Conservancy
	Alynn	Martin	US Geological Survey (USGS)
	Paul	Cross	US Geological Survey (USGS)
	Steven	Smith	Vetmeduni Vienna
	Robert	Wallace	Wildlife Conservation Society
	Fabian	Beltran	Wildlife Conservation Society
	Christian	Walzer	Wildlife Conservation Society
	Jose	Mena	Wildlife Conservation Society
	Mariana	Montoya	Wildlife Conservation Society
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	Joachim	Claudet	Centre National de la Recherche Scientifique (CNRS)
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	Georgina	Gurney	James Cook University
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	Courtney	Cox	Rare
	Josheena	Naggea	Stanford Earth
	Vera	Agostini	The Nature Conservancy
	Elizabeth	McLeod	The Nature Conservancy
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	Natalie	Ban	University of Victoria
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	Emily	Darling	Wildlife Conservation Society
	Prayekti	Ningtias	Wildlife Conservation Society
	Ita	Sualia	Wildlife Conservation Society
	Peni	Lestari	Wildlife Conservation Society Indonesia
	Irfan	Yulianto	Wildlife Conservation Society Indonesia

	Stuart	Campbell	Wildlife Conservation Society Indonesia
	Puji	Prihatiningsih	Wildlife Conservation Society Indonesia
	Timothy	McClanahan	Wildlife Conservation Society Kenya
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	Gabriella	Ahmadia	World Wildlife Fund
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	Joaquim	Comas	Catalan Institute for Water Research (ICRA)
	Rohini	Pradeep	Consortium for DEWATS Dissemination Society
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	Katharina	Tondera	Institut national de recherche en sciences et technologies pour l'environnement et l'agriculture (IRSTEA)
	Rui	Veras	International Water Association
	Samuela	Guida	International Water Association
	Ulrike	Kelm	International Water Association
	William	Thurston	International Water Association
	Katharine	Cross	International Water Association Bangkok Office
	Fabio	Masi	IRIDRA
	Lisa	Andrews	LMA Water Consulting
	Rose	Kaggwa	National Water and Sewerage Corporation (NWSC)
	Robert	McDonald	The Nature Conservancy
	Stephanie	Wear	The Nature Conservancy
	Nathan	Karres	The Nature Conservancy
	Michael	Gardner	The Nature Conservancy
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	Jamie	Lydersen	California Department of Forestry and Fire Protection
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	Charles	Maxwell	North Carolina State University
	Craig	Clements	San Jose State University
	Nic	Enstice	Sierra Foothill Conservancy
	Meg	Krawchuk	Simon Fraser University
	Kari	Nadeau	Stanford University
	Pete	Caligiuri	The Nature Conservancy
	Reese	Lolley	The Nature Conservancy
	Leah	Wood	The Nature Conservancy

	Ryan	Haugo	The Nature Conservancy
	Yuta	Masuda	The Nature Conservancy
	Nicholas	Wolff	The Nature Conservancy
	James	Fitzsimons	The Nature Conservancy
	Pete	Caligiuri	The Nature Conservancy
	Edward	Smith	The Nature Conservancy
	Leah	Wood	The Nature Conservancy
	Nicholas	Wolff	The Nature Conservancy
	Yuta	Masuda	The Nature Conservancy
	Ryan	Haugo	The Nature Conservancy
	Gillian	Gawne-Mittelstaedt	Tribal Healthy Homes Network
	Gillian	Gawne-Mittelstaedt	Tribal Healthy Homes Network
	Miriam	Marlier	University of California, Los Angeles
	Christopher	Tessum	University of Illinois
	Christopher	Tessum	University of Illinois
	Jennifer	Krenz	University of Washington
	Ernesto	Alverado	University of Washington
	Savannah	D'Evelyn	University of Washington
	Joe	Wilkins	University of Washington
	Claire	Schollaert	University of Washington
	Eddie	Kasner	University of Washington
	Jihoon	Jung	University of Washington
	Susan	Prichard	University of Washington
	Joe	Wilkins	University of Washington
	Jihoon	Jung	University of Washington
	Ernesto	Alverado	University of Washington
	Susan	Prichard	University of Washington
	Jennifer	Krenz	University of Washington
	Savannah	D'Evelyn	University of Washington
	Eddie	Kasner	University of Washington
	Claire	Schollaert	University of Washington
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	June	Spector	University of Washington, Seattle
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	Janice	Peterson	USDA Forest Service
	Stacy	Drury	USDA Forest Service Southern Research Station
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	David	Grant	Washington State Department of Health
	Julie	Fox	Washington State Department of Health
	David	Grant	Washington State Department of Health
	Carolyn	Whitaker	Washington State Department of Labor and Industries
	Carolyn	Whitaker	Washington State Department of Labor and Industries
	Karen	Zirkle	Washington State Department of Natural Resources

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	Julia	Mason	Environmental Defense Fund
	Willow	Battista	Environmental Defense Fund
	Merrick	Burden	Environmental Defense Fund
	Katherine	Mills	Gulf of Maine Research Institute
	Kanae	Tokunaga	Gulf of Maine Research Institute
	Christopher	Golden	Harvard University
	Mark	Dickey-Collas	International Council for the Exploration of the Sea (ICES)
	Gaku	Ishimura	Iwate University
	Jacqueline	Lau	James Cook University
	Roger	Griffis	NOAA, National Marine Fisheries Service (NMFS)
	Anne	Hollowed	NOAA, National Marine Fisheries Service (NMFS)
	Claudio	Silva	Pontificia Universidad Católica de Valparaíso
	Jono	Wilson	The Nature Conservancy
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	George	Freduah	University of the Sunshine Coast
	Edward	Allison	University of Washington
	Timothy	McClanahan	Wildlife Conservation Society Kenya
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	Fabrice	DeClerck	EAT Foundation
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	Yuta	Masuda	The Nature Conservancy
	Jensen	Montambault	The Nature Conservancy
	Paul	Armsworth	University of Tennessee
	Jane Carter	Ingram	Wildlife Conservation Society
	James	Watson	Wildlife Conservation Society
	David	Wilkie	Wildlife Conservation Society
NEON: Vulnerability To Invasion	Montse	Vilà	Estación Biológica de Doñana
	Ian	Pearse	Fort Collins Science Center, USGS
	Helen	Sofaer	Fort Collins Science Center, USGS
	David	Barnett	National Ecological Observatory Network, Inc. (NEON)
	Jeffrey	Dukes	Purdue University
	Haley	Flickinger	Purdue University
	Jeffrey	Corbin	Union College
	Regan	Early	Universidade de Évora
	Cascade	Sorte	University of California, Irvine
	Jeffrey	Diez	University of California, Riverside
	Bethany	Bradley	University of Massachusetts, Amherst
	Evelyn	Beaury	University of Massachusetts, Amherst
	Inés	Ibañez	University of Michigan
	Lais	Petri	University of Michigan
	Dana	Blumenthal	USDA Agricultural Research Service (ARS)
The Future of Synthesis Summit	Jessica	Gephart	American University

	Edward	Hackett	Arizona State University
	Nancy	Grimm	Arizona State University
	Beckett	Sterner	Arizona State University
	Hikaru	Furukawa	Arizona State University
	Rebecca	Jarvis	Auckland University of Technology
	Mireia	Valle Tobar	Basque Centre for Climate Change
	Eric	Sokol	Battelle
	Brendan	Shea	Beneath the Waves, Inc.
	Michael	Dietze	Boston University
	Kathryn	Wheeler	Boston University
	Sydne	Record	Bryn Mawr College
	Christopher	Solomon	Cary Institute of Ecosystem Studies
	Peter	Groffman	City University of New York (CUNY)
	Eva	Arroyo	Columbia University
	Irene	Ramos	Comisión Nacional para el Conocimiento y Uso de la Biodiversidad (CONABIO)
	Eric	Raes	Commonwealth Scientific and Industrial Research Organisation (CSIRO)
	David	Lodge	Cornell University
	Anthony	Richardson	CSIRO Marine and Atmospheric Research
	Elliot	Hazen	Duke University
	Diogo	Provete	Federal University of Mato Grosso do Sul
	Norah	Brown	Fisheries and Oceans Canada
	John	Kominoski	Florida International University
	Helen	Sofaer	Fort Collins Science Center, USGS
	Marten	Winter	German Centre for Integrative Biodiversity Research (iDiv)
	Caitlin	Swalec	Global Energy Monitor
	Arildo	Dias	Goethe Univserity of Frankfurt
	Erin	Beller	Google Inc
	Sarah	Garlick	Hubbard Brook Research Foundation
	Dominique	Pelletier	Institut Francais de Recherche pour l'exploitation de la Mer
	Bruce	Forsberg	Instituto Nacional de Pesquisas Amazonas
	Tamar	Guy-Haim	Israel Oceanographic and Limnological Research Institute (IOLR)
	Kristal	Jones	JG Research & Evaluation
	Christie	Bahlai	Kent State University
	Barbora	Winterova	Masaryk University
	Jake	Lawlor	McGill University
	Jurek	Kolasa	McMaster University
	Nan	Nourn	Michigan State University
	Carlos	Ramirez-Reyes	Mississippi State University
	Bridget	Ferriss	National Oceanic and Atmospheric Administration (NOAA)
	Matthew	Kane	National Science Foundation
	Rachael	Blake	National Socio-Environmental Synthesis Center (SESYNC)
	Jonathan	Tonkin	Oregon State University
	Neo	Martinez	Pacific Ecoinformatics and Computational Ecology Lab

	Julia	Koricheva	Royal Holloway, University of London
	Angelica	Gonzalez	Rutgers University
	Sarah	Cohen	San Francisco State University
	Kimberly	Komatsu	Smithsonian Environmental Research Center
	Paula	Pappalardo	Smithsonian National Museum of Natural History
	Suzanne	Ou	Stanford University
	Fiorenza	Micheli	Stanford University
	Larry	Crowder	Stanford University
	Danielle	Haulsee	Stanford University
	Alexa	Fredston-Hermann	State University of New Jersey, Rutgers
	Malin	Pinsky	State University of New Jersey, Rutgers
	Jessica	Gurevitch	State University of New York (SUNY), Stony Brook
	Marina	Wolowski	Universidade Estadual de Campinas (UNICAMP)
	Lesley	Lancaster	University of Aberdeen
	Tamara	Harms	University of Alaska, Fairbanks
	Carl	Boettiger	University of California, Berkeley
	Joan	Dudney	University of California, Berkeley
	Patrick	Gonzalez	University of California, Berkeley
	Kari	Norman	University of California, Berkeley
	Ryan	Peek	University of California, Davis
	Karrigan	Bork	University of California, Davis
	Casey	Youngflesh	University of California, Los Angeles
	Erin	Satterthwaite	University of California, San Diego
	Kristy	Kroeker	University of California, Santa Cruz
	Aaron	Schwartz	University of Colorado
	Lilli	Kaarakka	University of Colorado
	Laura	Dee	University of Colorado, Boulder
	William	Wieder	University of Colorado, Boulder
	Eliza	Grames	University of Connecticut
	Emilio	Bruna	University of Florida
	Carly	Muir	University of Florida
	Anil	Koirala	University of Georgia
	Matthew	Knope	University of Hawaii, Hilo
	David	Williams	University of Leeds
	Chloe	Schmidt	University of Manitoba
	Colin	Garroway	University of Manitoba
	Erle	Ellis	University of Maryland, Baltimore
	Craig	See	University of Minnesota
	Maria Cristina	Portales-Reyes	University of Minnesota
	Sarah	Hobbie	University of Minnesota, Twin Cities
	Gaurav	Kandlikar	University of Missouri
	Adam	Wymore	University of New Hampshire
	William	McDowell	University of New Hampshire
	Sara	Gagne	University of North Carolina

	Lauren	Hallett	University of Oregon
	Lauren	Ponisio	University of Oregon
	Lina	Aoyama	University of Oregon
	Rob	Salguero-Gomez	University of Oxford
	Michael	Clark	University of Oxford
	Lucy	Woodall	University of Oxford
	Paris	Stefanoudis	University of Oxford
	Ignacio	Diaz-Maroto	University of Santiago de Compostela
	Frank	Muller-Karger	University of South Florida
	Trisha	Spanbauer	University of Toledo
	Dustin	Kincaid	University of Vermont
	Jonathan	Walter	University of Virginia
	Kyle	Haynes	University of Virginia
	Max	Castorani	University of Virginia
	Rachel	Smith	University of Virginia
	Chelsea	Wood	University of Washington
	Jacqueline	Padilla-Gamiño	University of Washington
	Lauren	Buckley	University of Washington
	Trevor	Branch	University of Washington
	Ashley	Townes	University of Washington
	Jessica	Burnett	US Geological Survey (USGS)
	Stephen	Plont	Virginia Polytechnic Institute and State University
	Christopher	Lortie	York University

ACADEMIC PROJECTS: WORKING GROUPS & MEETINGS

NAME	MEETING TYPE	LEADER		START	END
Protein Sustainability	Working Group	Ho	Melissa	7/14/2019	7/17/2019
LTER: Communities to Ecosystems	Working Group	Komatsu	Kimberly	7/15/2019	7/18/2019
SNAPP: Appalachian Coalfields	Working Group	Dunscomb	Judy	7/24/2019	7/26/2019
SNAPP: Flow Impacts	Working Group	Vigerstol	Kari	7/29/2019	8/1/2019
Fungal Traits	Working Group	Schildhauer	Mark	8/15/2019	8/17/2019
Clean Seafood	Working Group	Halpern	Benjamin	8/19/2019	8/20/2019
LTER: Synchrony	Working Group	Hallett	Lauren	9/10/2019	9/13/2019
LTER: Stream Elemental Cycling	Working Group	Wymore	Adam	9/11/2019	9/13/2019
LTER: Biodiversity and Productivity	Working Group	Isbell	Forest	9/23/2019	9/27/2019
SNAPP: Levers for Health	Working Group	Sokolow	Susanne	9/30/2019	10/3/2019
PEGASuS: Managing Ocean Change and Food Security	Working Group	Micheli	Fiorenza	10/7/2019	10/9/2019

LTER: SOM Synthesis	Working Group	Wieder	William	10/14/2019	10/18/2019
SNAPP: Zero Deforestation Maps	Working Group	Heilmayr	Robert	10/16/2019	10/18/2019
NEON: Vulnerability To Invasion	Working Group	Bradley	Bethany	10/21/2019	10/25/2019
SNAPP: Sanitation for and by Nature	Working Group	Cross	Katharine	11/4/2019	11/7/2019
SNAPP: Coastal Outcomes	Working Group	Darling	Emily	11/13/2019	11/15/2019
PEGASuS: Ocean Observing Systems	Working Group	Bax	Nicholas	12/2/2019	12/5/2019
Global Food Systems	Working Group	Halpern	Benjamin	12/10/2019	12/13/2019
SNAPP: Appalachian Coalfields	Working Group	Dunscomb	Judy	2/5/2020	2/7/2020
SNAPP: Climate Resilient Fisheries	Working Group	Mills	Katherine	2/24/2020	2/28/2020
SNAPP: Conservation Aquaculture	Working Group	Wasson	Kerstin	3/18/2020	3/20/2020
SNAPP: Steppe Health	Working Group	Fine	Amanda	3/24/2020	3/26/2020
SNAPP: Zero Deforestation	Working Group	Heilmayr	Robert	4/1/2020	4/3/2020
SNAPP: Wild Camelid Mange	Working Group	Walzer	Christian	4/16/2020	4/17/2020
SNAPP: FlowImpacts	Working Group	Vigerstol	Kari	4/21/2020	4/22/2020
NEON: Vulnerability to Invasion	Working Group	Bradley	Bethany	5/18/2020	5/21/2020
SNAPP: Healthy Forests and Humans	Working Group	Haugo	Ryan	5/26/2020	5/28/2020
Soil Data Harmonization	Workshop	Halpern	Benjamin	4/14/2020	4/16/2020
Arctic Data Center Social Science Workshop	Workshop	Jones	Matthew	4/21/2020	4/23/2020
Arctic Data Center: Science Advisory Board	Advisory Board	Jones	Matthew	8/27/2019	8/28/2019
SNAPP: Board of Directors	Advisory Board	Montambault	Jensen	9/25/2019	9/25/2019
SNAPP: Management Team	Advisory Board	Montambault	Jensen	1/22/2020	1/23/2020
SNAPP: Board of Directors	Advisory Board	Montambault	Jensen	3/12/2020	3/12/2020
Dryad Data Repository	Meeting	Jones	Matthew	10/4/2019	10/4/2019
SNAPP: Central Pacific Data Collaboration	Meeting	Montambault	Jensen	1/7/2020	1/9/2020
VoCamp Meeting	Meeting	Halpern	Benjamin	1/27/2020	1/28/2020
The Whole Tale All Hands Meeting	Meeting	Ludaescher	Bertram	3/4/2020	3/6/2020

TRAININGS AND WORKSHOPS

NAME	MEETING TYPE	LEADER		START	END
Reproducible Research Techniques for Synthesis	Training Workshop	Jones	Matthew	11/12/2020	11/18/2020
Arctic Data Center Training	Training Workshop	Jones	Matthew	10/19/2020	10/23/2020
SNAPP collaboration training workshop (1)	Training Workshop	Montambault	Jensen	5/18/2021	5/19/2021
SNAPP collaboration training workshop (2)	Training Workshop	Montambault	Jensen	5/25/2021	5/26/2021
DataONE Fee for Training	Training Workshop	Jones	Matthew	2/25/2021	3/3/2021
SciComm Training	Training Workshop	Halpern	Benjamin	2/10/2021	2/11/2021
The Future of Synthesis Summit	Workshop	Halpern	Benjamin	2/17/2021	2/18/2021
NCEAS-COMPASS Spring Foundational Communication workshop	Workshop	Halpern	Benjamin	6/1/2021	6/2/2021
Openscapes-NASA Software Carpentry Workshop	Workshop	Stewart Lowndes	Julia	5/17/2021	5/19/2021

PUBLICATIONS

Journal Articles

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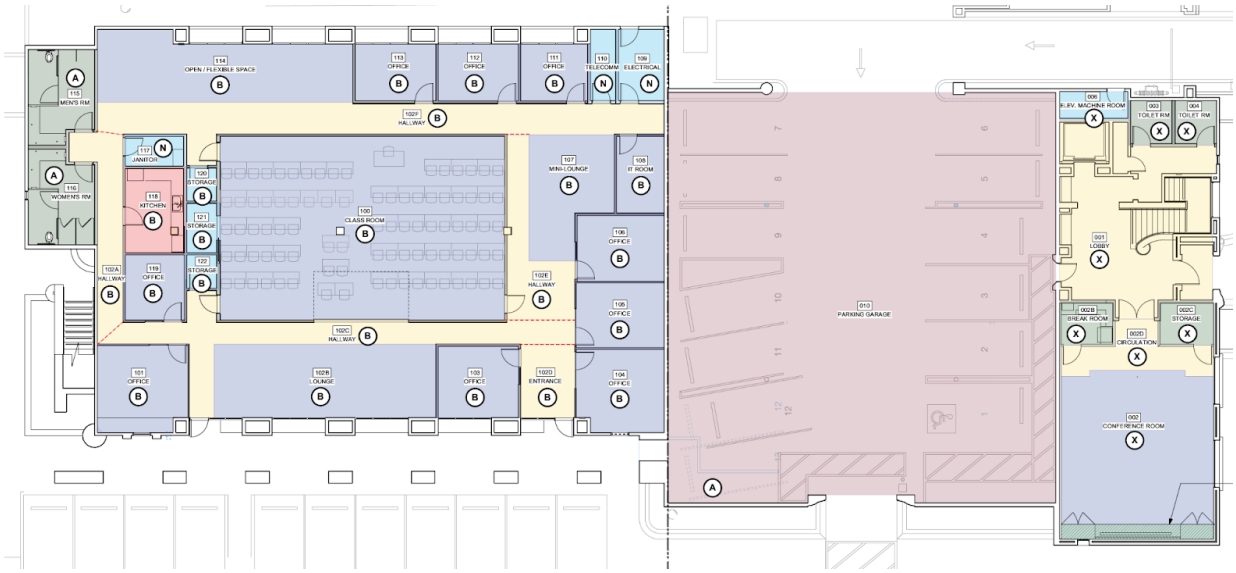
SPACE

This year NCEAS transitioned to a newly renovated location in downtown Santa Barbara after 26 years in the Balboa Building. This new location at 1021 Anacapa Street, Santa Barbara, CA 93101-5504 Street remains approximately 8.5 miles from the main UC Santa Barbara campus.

1021 Anacapa Layout:



First floor layout. NCEAS occupies the entire main suite of the first floor to the left of the parking garage, including 9 offices, a large classroom, two lounges, and two restrooms.

Third floor plan. NCEAS occupies the entire third floor of the building, including 19 offices, three conference rooms, four restrooms, and a large outdoor terrace.