



SOUTHERN CALIFORNIA  
**COASTAL OCEAN**  
**OBSERVING SYSTEM**

# Spring NEWSLETTER

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## In the Spotlight

### IOOS Spring Meeting and Capitol Hill Visits



**Left:** Kristen Yarincik (IOOS Association), Eric Bjorkstedt, Alex Harper, Henry Ruhl (CeNCOOS), and Staffer. **Middle:** Eric, Henry, Megan Medina (SCCOOS), Clarissa, Libe Washburn (SCCOOS), and Alex. **Right:** Henry, Clarissa, Alex Phillips (Sen. Padilla's Staffer), Libe, and Chris Castillo (Scripps Institution of Oceanography Government Relations)

Clarissa Anderson, Libe Washburn, Megan Medina, and Ian Brunjes from SCCOOS attended the IOOS Spring meeting March 12-13. The meeting included a panel with BOEM on wind energy, a congressional briefing on ICOOS Act reauthorization, a discussion of the FY25 President's Budget, and working sessions.

Then CeNCOOS, SCCOOS, and Scripps Institution of Oceanography's government relations team joined forces to visit Representatives Carbajal, Levin, Barragán, Vargas, Jacobs, Peters, Kamlager-Dove, Lieu, and Senators Padilla and Butler. Spreading a message of gratitude for the Bipartisan Infrastructure Law funds and advocating for sustained ocean observations and our network that relies on IOOS models and data.



## FY25 President's Budget Outreach

### Scientists are sounding the alarm about oceans, but Biden's budget would slash research data



By Ella Nilsen, CNN

© 4 minute read · Published 6:00 AM EDT, Tue April 2, 2024



Fiscal Year 2025 President's Budget was released, along with the [Congressional Justification](#) outlining the NOAA component of that budget. The proposed budget for IOOS Regional Observations is \$10 million, a **reduction of more than 76%** from fiscal year 2023 and 2024 enacted levels, and less than any funding level for the program since its inception in the 2008 federal budget.

#### ***What we are doing***

- SCCOOS, CeNCOOS, IOOS Association, and Scripps Institution of Oceanography's Government Relations Team met with 10 offices in D.C. advocating for SCCOOS and IOOS and we are following up with the staffers this week urging them to sign the **House Dear Colleague letter led by Reps. Carbajal, Pingree, and Posey** that is currently circulating and requests \$56M. IOOS Association will use it to advocate for FY25 funding and also for a better number in the FY26 President's budget.
  - IOOS Advisory Committee also wrote a [letter](#) to Dr. Spinrad urging him to amend the President's budget request as it relates to the IOOS Regional Associations.
  - [CNN article](#) released April 2 (pictured above)
  - ESP Advisors (Ocean Observing Advocate) [blog post](#) - Diving Deeper: What's Really Going on With the President's Budget?
  - IOOS Association led support letters sent to Congress has over 700 signatures and our Dear Colleague Letters are up to 40 signatures.
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## National HAB Committee Nominations



HAB SPECIES      MAPS      IMPACTS

**U.S. National Office for Harmful Algal Blooms**

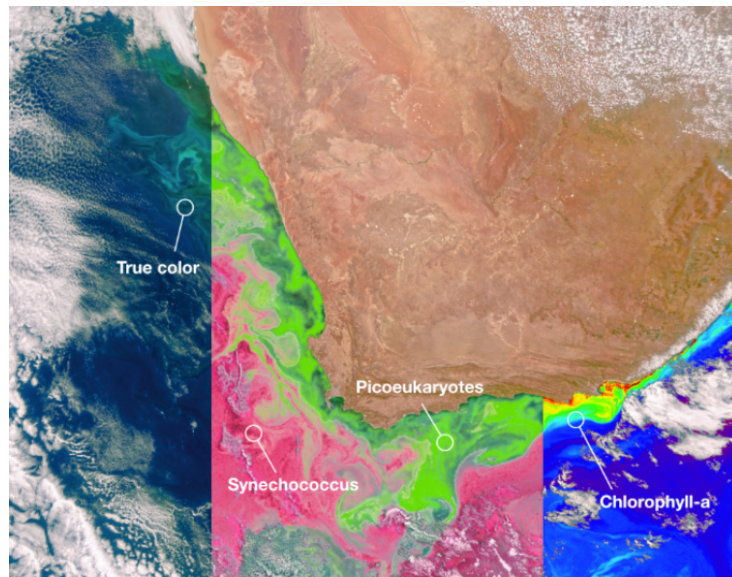
**National HAB Committee**

RESEARCH      RESOURCES      RESPONSE

[Submit nominations](#) (self nominations are ok too) for the [National HAB Committee](#) due by May 17<sup>th</sup>

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## NASA PACE Data Now Available



The Plankton, Aerosol, Cloud, ocean Ecosystem (PACE) satellite was launched on Feb. 8, and has officially proceeded into its science operations phase.

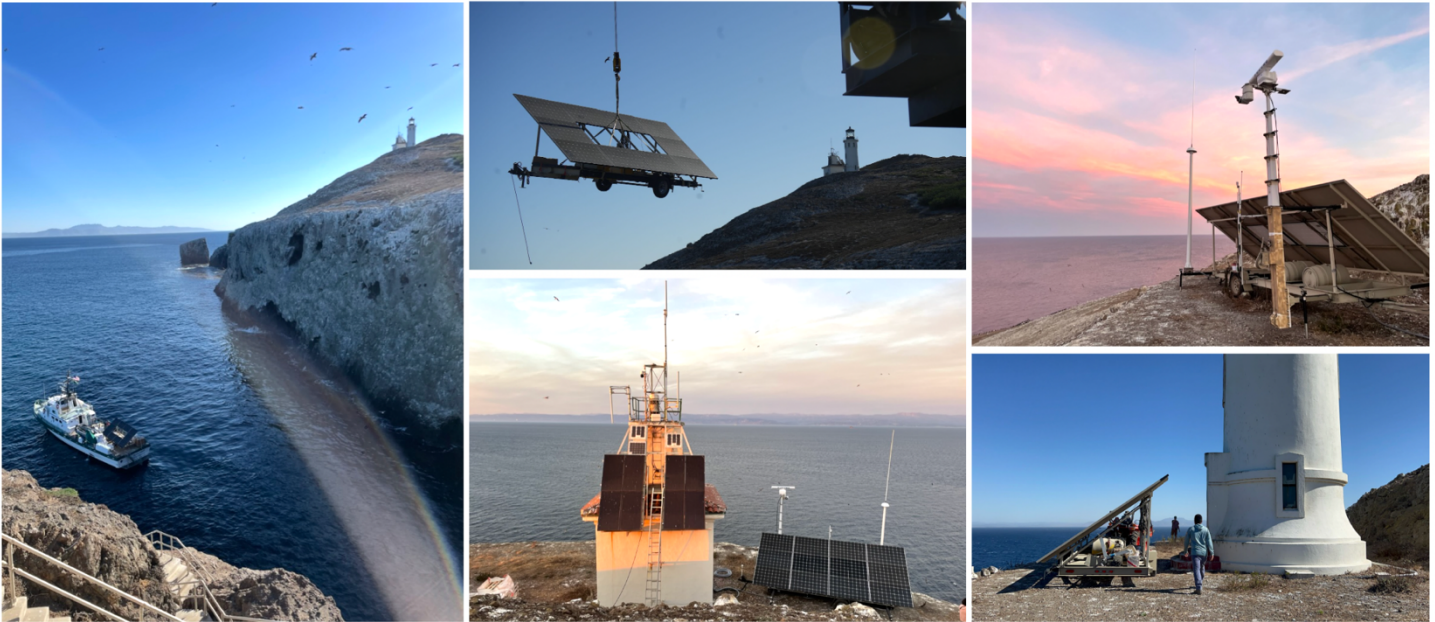
Data will advance the understanding of issues including fisheries health, harmful algal blooms, air pollution, and wildfire smoke. With PACE, scientists also can investigate how the ocean and atmosphere interact with each other and are affected by a changing climate.

[Access Data](#)

[Press Release](#)

## In the Field

### New High Frequency Radar Station



In February 2024 SCCOOS High Frequency Radar technicians installed a new radar station (AC11) on Anacapa Island to monitor surface currents. In addition, a M2 radar was installed to monitor vessel traffic.

Permitting, planning, and installation was a collaboration among [SCCOOS](#), [US IOOS](#), [NOAA Channel Islands National Marine Sanctuaries](#), [Anthropocene Institute](#), [Channel Islands National Park](#), and [Global Conservation](#).

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## Amigos de Bolsa Chica FLOW Team Visit



**Upper Left:** Jerry Donohue, John Carter, Annie Daw, Sam Lopez, and Alex Yuan (Amigas de Bolsa Chica Flow Team) visit the SIO Campus and Tour SCCOOS technologies. **Upper Right:** Annie, Alex, Megan Medina (SCCOOS), Melissa Carter (SCCOOS Shore Stations) SCCOOS and Flow Team meet for coffee in our lounge. **Lower Left:** Elena Beckhaus (SCCOOS Shore Stations) demonstrated how water samples are collected on the SIO Pier. **Lower Right:** Melissa leads a SIO Pier tour.

On April 1, SCCOOS program staff and shore station personnel met with [Amigos of Bolsa Chica FLOW](#) program staff and volunteers. We discussed our program objectives looking for potential areas of partnership. Melissa Carter, Elena Beckhaus, and Kayla Martin gave us all an in-depth tour of their Pier-based water sampling and lab. The next time you are in the Huntington Beach area, check out their many water quality, community science, habitat restoration projects, and field trips led by a truly dedicated crew.

## Winter Activities



**Left:** Ocean Science Trust Panel - Laurie Richmond (Cal Poly Humboldt), Clarissa Anderson (SCCOOS), Heather Tallis (UC Santa Cruz & World Wildlife Fund), Kaitlyn Kalua (California Ocean Protection Council).  
**Right:** Laurie, Kiya Bibby (California Ocean Science Trust), Clarissa, Heather, and Kaitlyn.

- January 18-19: Ocean Science Trust Panel discussing the White House Ocean Climate Action Plan with State Legislative Offices, Sacramento, CA - Clarissa Anderson on panel (Pictured above)
- January 22: Ocean Discovery Institute Science Leader, virtual - Danielle Muller volunteered
- January 23: Forum on El Niño facilitated by SIO Director's Office - Mark Merrifield, Dan Rudnick, and Clarissa Anderson presented. [Article](#) in the La Jolla Light highlights the event
- January 24: DDT community meeting - virtual, Danielle Muller on planning committee and moderated - check out the [video recording](#)
- February 2: Clarissa Anderson presented at the departmental seminar for the SIO Marine Biology Department
- February 3: 2024 [Love Your Wetlands Day](#), San Diego, CA - Danielle Muller hosts a booth
- February 4-9: NASA PACE [Launch](#), Cape Canaveral, FL - Clarissa Anderson on the science team and attended
- February 17-18: OASIS community [workshop](#), New Orleans, LA - Clarissa Anderson on the workshop organizing committee and attended.
- February 19-24: Ocean Sciences Meeting, New Orleans, LA - Clarissa Anderson on a NASA PACE press Panel, presented a poster, organized and moderated the [NAHBON](#) Town Hall with an impressive panel, and presented a poster on the HAB Data Assembly Center Kasia Kentiz presented a poster and participated in a [OPO working group](#), Megan Medina attended.
- February 27: [Binational Coastal Resilience Convening](#), Ensenada, Mexico - Megan Media presented a poster and attended
- March 4-5: [PACE](#) PI Meeting, NASA AMES Research Center, Mountain View, CA - Clarissa Anderson attended and presented on the CalCOFI validation project
- March 7: NOAA Hydrographic Services Review Panel Bi-Annual [Meeting](#), Virtual - Clarissa Anderson presented
- March 12-14: IOOS Spring Meeting and Hill Visits, Washington DC - Clarissa Anderson, Libe Washburn, Megan Medina, Ian Brunjes attended and visited California legislative leadership with SIO Government Relations team.
- March 21: SDR-Alert meeting, Encinitas, CA - Danielle Muller attended

On the Horizon



## OCEAN OBSERVING IN CALIFORNIA



Celebrate the Past, Showcase the Present, Envision the Future

May 14-16, 2024 at the Catamaran Resort Hotel and Spa

A Joint Meeting Hosted by SCCOOS, CeNCOOS, and CalCOFI

[Detailed Agenda](#)

[Poster & Exhibit Booth Details](#)



**Eastern Pacific Ocean Conference**

[www.easternpacificoceanconference.org](http://www.easternpacificoceanconference.org)

September 11-14, 2024 at Timberline Lodge in Mt Hood, Oregon

Visit [Conference Website](#) for more information







# Optimizing Ocean Observing Networks for Detecting the Coastal Climate Signal

September 23-25, 2024  
Boulder, Colorado and Virtual

Bringing together operators and users of coastal ocean observing systems to identify key science issues in detecting and responding to coastal climate change in the coming decades.



**September 23-25, 2024 in Boulder Colorado**

**Travel requests & [abstract submissions](#) due May 31st - [Email](#) for more info  
[Learn more](#) and [Register](#) (In person) by September 6th**

- April 20: MERITO [Earth Day](#) Celebration - Danielle hosting a booth
- April 20-25: SIO UdeC workshop, Concepcion, Chile - Clarissa Anderson attending
- April 30: Ocean Discovery Science Leader [Volunteer Day](#), San Diego, CA - Danielle Muller attending
- May 2-3: Federal Fishery Disaster Symposium & Workshop
- May 7-9: [CEFI](#) Workshop, SWFSC - Clarissa, Megan
- May 14-16: SCCOOS, CeNCOOS and CalCOFI Co-host [Conference](#): Celebrating Ocean Observing in California, San Diego, CA
- May 20-23: Marine Technology Society Buoy [Workshop](#), Sequim, WA
- May 21-22: Pacific Passive Acoustic Monitoring Network for Marine Mammals Workshop
- May 21-23: IOOS DMAC Code Spring, Washington, D.C. - I. Brunjes
- May 29: AltaSea [Ribbon Cutting](#) of Berth 58, San Pedro, CA - Danielle attending
- May 29-30: [WCOA](#) Marine Mammal Meeting, SCCWRP
- June 6: SANDAG Shoreline Preservation Working Group, San Diego, CA - Danielle Muller attending
- June 7-13: Pacific Fishery Mgmt Council Meeting, San Diego, CA
- June 12: American Cetacean Society, San Diego Chapter public presentation - Clarissa Anderson presenting

## Recent Publications

SCCOOS principal investigators are in **bold**

- Thompson Andrew R., Swalethorp Rasmus, Alksne Michaela, Santora Jarrod A., Hazen Elliott L., Leising Andrew, **Satterthwaite Erin, Sydeman William J., Anderson Clarissa R.**, Auth Toby D., Baumann-Pickering Simone, Baumgardner Timothy, Bjorkstedt Eric P., Bograd Steven J., Bowlin Noelle M., Burke Brian J., Daly Elizabeth A., Dewar Heidi, Field John C., Fisher Jennifer L., Garfield Newell, Gidding Ashlyn, Goericke Ralf, Golightly Richard, Gómez-Ocampo Eliana, Gomez-Valdes Jose, Hildebrand John A., Jacobson Kym C., Jacox Michael G., Jahncke Jaime, Johns Michael, Jones Joshua M., Lavaniegos Bertha, Mantua Nate, McChesney Gerard J., **Medina Megan E.**, Melin Sharon R., Miranda Luis Erasmo, Morgan Cheryl A., Nickels Catherine F., Orben Rachael A., Porquez Jessica M., Preti Antonella, Robertson Roxanne R., **Rudnick Daniel L.**, Sakuma Keith M., Schacter Carley R., Schroeder Isaac D., Scopel Lauren, Snodgrass Owyn E., Thompson Sarah Ann, Warzybok Pete, Whitaker Katherine, Watson William, Weber Edward D., Wells Brian. **State of the California Current Ecosystem report in 2022: a tale of two La Niñas.** Front. Mar. Sci., Sec. Marine Ecosystem Ecology Volume 11. <https://doi.org/10.3389/fmars.2024.1294011>
- Zachary R. Skelton, Lillian R. McCormick, Garfield T. Kwan, Joshua Lonchair, Carlos Neira, Samantha M. Clements, **Todd R. Martz**, Philip J. Bresnahan, **Uwe Send**, Sarah N. Giddings, Jeffrey C. Sevadjian, Stephanie Jaeger, Adriano Feit, Benjamin W. Frable, Phillip J. Zerofski, Melissa Torres, Jeffrey A. Crooks, Justin McCullough, **Melissa L. Carter**, Eva Ternon, Luke P. Miller, Gabriella M. Kalbach, Duncan C. Wheeler, P. Ed Parnell, Katherine M. Swiney, Garrett Seibert, Jeremiah J. Minich, John R. Hyde, Philip A. Hastings, Jennifer E. Smith, Lisa M. Komoroske, Martin Tresguerres, Lisa A. Levin, Nicholas C. Wegner; **Organismal responses to deteriorating water quality during the historic 2020 red tide off Southern California.** Elementa: Science of the Anthropocene 12 January 2024; 12 (1): 00067. doi: <https://doi.org/10.1525/elementa.2023.00067>
- Atharva Ramgirkar, Vadiraj Rao, Janhavi Talhar, Tusar Kanti Mishra, Swathi Jamjala Narayanan, Shashank Mouli Satapathy, Boominathan Perumal. **Mining of heterogeneous time series information for predicting chlorophyll accumulation in oceans.** Sustainable Computing: Informatics and Systems, Volume 42, 2024, 100980, ISSN 2210-5379. <https://doi.org/10.1016/j.suscom.2024.100980>.  
**Uses SCCOOS Data**
- Eva Ternon, **Melissa L. Carter**, Lucia Cancelada, Robert H. Lampe, Andrew E. Allen, **Clarissa R. Anderson**, Kimberly A. Prather, William H. Gerwick; **Yessotoxin production and aerosolization during the unprecedented red tide of 2020 in southern California.** Elementa: Science of the Anthropocene 5 January 2023; 11 (1): 00021. doi: <https://doi.org/10.1525/elementa.2023.00021>
- Kelly, K.J., Kast, D.J., Schiksnis, C.A. and Thrash, J.C., 2023. **Hands-on Hypoxia: Engaging High School Educators in the science behind Marine Microbial Dynamics in Hypoxic Coastal Areas Through Field and Classroom Experiences.** Current: The Journal of Marine Education, 38(1), p.28–41. DOI: <https://doi.org/10.5334/cjme.86>  
**Uses SCCOOS Data**

## Articles of Interest

- Swalethorp, R., Landry, M.R., Semmens, B.X. et al. **Anchovy boom and bust linked to trophic shifts in larval diet.** Nat Commun 14, 7412 (2023). <https://doi.org/10.1038/s41467-023-42966-0>
- Walter, J.A., Emery, K.A., Dugan, J.E., Hubbard, D.M., Bell, T.W., Sheppard, L.W., Karatayev, V.A., Cavanaugh, K.C., Reuman, D.C., Castorani, M.C.N. **Spatial synchrony cascades across ecosystem boundaries and up food webs via resource subsidies,** Proceedings of the National Academy of Sciences 121 (2) e2310052120, <https://doi.org/10.1073/pnas.2310052120>
- Greenberg, D. A., Pattengill-Semmens, C. V., & Semmens, B. X. (2024). **Assessing the value of citizen scientist observations in tracking the abundance of marine fishes.** Conservation Letters, e13009. <https://doi.org/10.1111/conl.13009>
- John Lodise, Sophia Merrifield, Clarence Collins, James Behrens & Eric Terrill (2024) **Performance of ERA5 wind speed and significant wave height within Extratropical cyclones using collocated satellite radar altimeter measurements,** Coastal Engineering Journal, [DOI: 10.1080/21664250.2023.2301181](https://doi.org/10.1080/21664250.2023.2301181)
- Johnston EM, Waltz GT, Kosaka R, Brauer EM, Ziegler SL, Jarvis Mason ET, Glanz HS, Zaragoza L, Kellum AN, Brooks RO, Semmens BX, Honeyman CJ, Caselle JE, Bellquist LF, Small SL, Morgan SG, Mulligan TJ, Coscino CL, Staton JM, Starr RM, Hamilton SL, Ruttenberg BI and Wendt DE (2024) **Participation in collaborative fisheries research improves the perceptions of recreational anglers towards marine protected areas.** Front. Mar. Sci. 11:1330498. [doi: 10.3389/fmars.2024.1330498](https://doi.org/10.3389/fmars.2024.1330498)

- S. Fisher Gonski, George W. Luther, Amanda L. Kelley, Todd R. Martz, Elliott G. Roberts, Xinyu Li, Bo Dong, Jordan A. Watson, Taylor S. Wirth, Najid Hussain, Randy J. Feris Serrano, Edward Hale, Wei-Jun Cai. **A half-cell reaction approach for pH calculation using a solid-state chloride ion-selective electrode with a hydrogen ion-selective ion-sensitive field effect transistor**, Marine Chemistry, 2024, 104373, ISSN 0304-4203, <https://doi.org/10.1016/j.marchem.2024.104373>
- Wanner, Miriam S., Jonathan A. Walter, Daniel C. Reuman, **Tom W. Bell**, and Max C. N. Castorani. 2024. “Dispersal Synchronizes Giant Kelp Forests.” Ecology 105(4): e4270. <https://doi.org/10.1002/ecy.4270>
- **Ryan K. Walter**, Michael Dalsin, Piero L.F. Mazzini, Cassia Pianca. **Compound marine cold spells and hypoxic events in a nearshore upwelling system**. Estuarine, Coastal and Shelf Science, Volume 300, 2024, 108706, ISSN 0272-7714. <https://doi.org/10.1016/j.ecss.2024.108706>.

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