

## Publications

- Yoerger, D. R., A. F. Govindarajan, J. C. Howland, J. K. Llopiz, P. H. Wiebe, M. Curran, J. Fujii, D. Gomez-Ibanez, K. Katija, B. H. Robison, B. W. Hobson, M. Risi, S. M. Rock, A hybrid underwater robot for multidisciplinary investigation of the ocean twilight zone. *Sci. Robot.* 6, eabe1901 (2021). <https://doi.org/10.1126/scirobotics.abe1901>
- Molodtsova TN, Opresko DM, Wagner D. 2022. *Description of a new and widely distributed species of Bathypathes (Cnidaria: Anthozoa: Antipatharia: Schizopathidae) previously misidentified as Bathypathes alternata Brook, 1889.* *PeerJ* 10:e12638  
<https://doi.org/10.7717/peerj.12638>
- Wishnak, S., J. Flanders, E. Crum, and C. Wiener, eds. 2022. *New frontiers in ocean exploration: The Ocean Exploration Trust, NOAA Ocean Exploration, and Schmidt Ocean Institute 2021 field season.* A Supplement to *Oceanography* 35(1), 78 pp.,  
<https://doi.org/10.5670/oceanog.2022.supplement.01>.
- L Gee, E Heffron, C Kelley, E Petruncio, K von Krusenstiern, N Baechler, S Wishnak, R Kane, A Hartwell, JR Smith, N Raineault: *E/V Nautilus 2021 Mapping: US West Coast to Papahānaumokuākea Marine National Monument.* A Supplement to *Oceanography* 35(1): 24-25 pp.  
<https://doi.org/10.5670/oceanog.2022.supplement.01>
- A Soule, S Auscavitch, A Fundis, RD Ballard, C Rodriguez, E Heffron, K Moran: *Exploration of an Unnamed Seamount Chain.* A Supplement to *Oceanography* 35(1): 38-39pp.  
<https://doi.org/10.5670/oceanog.2022.supplement.01>
- T Baumberger, J Beeson, S Merle, N Buck, A Antriasian, K Roe, S Brown, LA Bellucci: *Investigating Active Methane Seeps Along the Cascadia Margin.* A Supplement to *Oceanography* 35(1):28-29pp.  
<https://doi.org/10.5670/oceanog.2022.supplement.01>
- A Balbas, BN Orcutt, C Kelley, S Auscavitch, E Petruncio, JR Smith, N Raineault, K Steward: *Lu'uaeaahikiikapapakū: Ancient Volcanoes in*

*Papahānaumokuākea Marine National Monument*. A Supplement to Oceanography 35(1): 36-37 pp.

<https://doi.org/10.5670/oceanog.2022.supplement.01>

- JM Bernhard, VP Edgcomb, CC Powers, B Travis, S Lott, D Yousavich, K Haiat, N Raineault, P Girguis: *Probing the Santa Barbara Basin Benthos*. A Supplement to Oceanography 35(1): 26-27 pp.  
<https://doi.org/10.5670/oceanog.2022.supplement.01>
- Yoerger DR, Govindarajan AF, Adams A, Curran M, Frates E, Hayden EB, Kawasumi L, Marin F, Stanway MJ, Stover S, Wishnak, S., J. Flanders, E. Crum, and C. Wiener.: *Midwater Exploration with Mesobot, Radiometry, and Environmental DNA*. A Supplement to Oceanography 35(1): 34-35 pp. <https://doi.org/10.5670/oceanog.2022.supplement.01>
- R Pockalny, S Auscavitch, K Konrad, M Everett, E Miller, B Scott, A Fundis, M Cook, E Heffron, L Gee, R Kane, D Wagner: *Mapping and Exploration of Deep Seamounts around Johnston Atoll: 2021 Expeditions aboard E/V Nautilus*. Deep-Sea Life  
[https://www.dosi-project.org/wp-content/uploads/DSL19\\_FINAL1.pdf](https://www.dosi-project.org/wp-content/uploads/DSL19_FINAL1.pdf)
- Mah, Christopher ; Linse, Katrin ; Copley, Jon ; Marsh, Leigh ; Rogers, Alex ; Clague, David ; Foltz, David: *New Genera, Species and Occurrences of Deep-Sea Asteroidea (Valvatacea, Forcipulatacea, Echinodermata) collected from the North Pacific Ocean by the CAPSTONE Expedition*. Zoological journal of the Linnean Society, 2015, Vol.174 (1), p.93-113  
<https://doi.org/10.1111%2Fzoj.12229>
- K Quiocho, A Fundis, K Morishige, JH Lorenzo-Elarco, H Pihana, A Anderson, M Cook: *Re-envisioning the Collective Voyage for Ocean Exploration*. 2022 National Ocean Exploration Forum  
[https://oceanleadership.org/wp-content/uploads/2022/01/Quiocho-Fundis\\_2022NOEF\\_Whitepaper\\_2-1-22.pdf](https://oceanleadership.org/wp-content/uploads/2022/01/Quiocho-Fundis_2022NOEF_Whitepaper_2-1-22.pdf)

**Conferences, Presentations, Invited talks and Video Submissions**



- Yoerger, D. - Plenary Address: Exploring the Seafloor and Midwater Ocean with Robots is a Human Adventure Oceans 2021 Plenary Address
- Mayer, L.A. - Invited Talk: Invited Talk, *Seafloor Mapping: Where we are and where we are going*, Global Maritime Forum 2021, National Maritime Intelligence Integration Office, Applied Research Lab, Univ of Hawaii, 21 September 2021
- Mayer, L.A, and Schmidt V. - Invited Talk: *The Ocean Exploration Cooperative Institute: Mapping and Exploring the Ocean with the Next Generation of Uncrewed Surface Vessels* OEI Webinar, 20 October 2021
- Mayer, L.A. - Keynote Talk: *Seabed 2030*, ABLOS Annual Meeting, Monaco 7 October 2021
- Levin, L., K. Mizell, O. Pereira, G. Mendoza, D. Vlach, K. Pearson - Symposium: *Macrobenthos of phosphorite and Fe-Mn crust hardgrounds in the Southern California Borderland* Deep Sea Biology Symposium 2021
- Vlach, D., L. Levin, K. Mizell - Symposium: *Megafauna Assemblage on Mineral-Rich Hardgrounds in the Southern California Bordlerland* Deep Sea Biology Symposium 2021
- Soule, A., Elmore, A., Fundis, A., Mayer, L.A. - Oral Session - OS12A: *Ocean Exploration I* AGU 2021
- Soule, A., Elmore, A., Fundis, A., Mayer, L.A. - Poster Session - OS15E: *Ocean Exploration II* AGU 2021
- Mayer, L.A. - Invited Talk: *Saildrone Surveyor Updates* OEI Colloquium, 08 December 2021
- Raineault N. - Plenary presentation: *The presentation focused on the importance of partnerships and advanced technologies to catalyze exploration. Towards the end of the plenary presentation, the NA131 team connected with the conference from onboard the E/V Nautilus via telepresence.* Lake bed 2030 conference, September 29, 2021



- Yoerger D. - Presentation: *Midwater exploration with autonomous vehicles*, Remote from the E/V Nautilus during NA131. Oceans conference in Lisbon, Portugal 2021.
- Mayer/Mayer - Invited Lecture: *The Quest to Completely Map the World's Seafloor by 2030* USF COMIT Inaugural Seminar 2021
- Suman, Jakuba, Dalpe, Bowen- OS12A-08: *Towards Teleoperation Of Oceanographic Research Vehicles* AGU 2021
- Mayer, L.A. - Invited Lecture: *Can We Map the Entire World Ocean by 2030?* Ocean Sciences Meeting, Munk Medal Award Lecture, 2 March 2022
- Wagner, D.- Special Session: *Partnerships and Priorities: Mapping Collaborations in the Pacific Region: A presentation summarizing the accomplishments of recent E/V Nautilus expeditions in the Pacific, including those of NA140* NOAA Hydrographic Services Review Panel Meeting on September 20, 2022
- Soule,A., Elmore,A., Chaytor, Bowen,A.-Session DS07: *Advancing Ocean Exploration Technology* OSM 2022
- D Millar, V Ferrini, A Fundis, C Peters, H Pihana - Whitepaper panel discussion: *Alliances and a Community of Practice* – Whitepaper Discussion NOEF 2022
- Wagner, D. - Webinar: *An Expedition Summary* OEI colloquium, June 8 2022
- Cantwell, Robers, Adams, Kenchington Session- DS09: *Catalyzing Atlantic discovery: New insights into deepwater biological and geological exploration of the Atlantic basin* OSM 2022
- Benner, B.E., Andrade, Ca., Serres, M.H., Vallino, J.J., and J.A. Huber. - Conference Abstract: *Characterization of viral diversity and their influence on microbial metabolic processes in a meromictic system.* Marine Microbes Gordon Research Conference. Les Diablerets, Switzerland 2022
- Mayer, L.A. *Deep DriX* OEI Colloquium, 19 January 2022



- Schmidt, V. - Invited talk: *DriX Integration aboard E/V NAUTILUS*, June 2022
- Schmidt, V.- Invited talk: *DriX Update: Results of the Shakedown Cruise* Ocean Exploration Colloquium, April, 2022
- Lobecker, E. Scheurle, Albano, Fundis A., - Session - ED06: *Enabling Remote Ocean Science and Educational Opportunities, Lessons Learned During a Global Pandemic and Benefits for the Future* OSM 2022
- Mayer, L.A. - Radio Broadcast: *EV nautilus test 3 remotely operated vehicles* Hawaii Public Radio 26 May 2022
- Mayer, L.A. - Invited Talk: *From the President's Panel on Ocean Exploration to NOMEAC - Can We Really Map and Characterize the US EEZ?* Ocean Sciences Meeting, 28 February 2022
- Orcutt, B. - *Public lecture: Living Between a Rock and Hard Place: Microbial Life in the Deep Sea and Potential Impacts of Deep-sea Mining* NOAA National Marine Sanctuaries "Third Thursday by the Bay" series. May 17, 2022
- Orcutt, B. - Session - DS06: *Microbial Ecosystem Services and Associations with Ferromanganese Crusts on Seamounts of the Papahānemoakuākea Marine National Monument: Initial Results* OSM 2022
- Yoerger, D. - Webinar: *Midwater Exploration with Mesobot* OEI colloquium
- Quadara, Rae, Trish Albano, Osa Idehen, Jessie Kastler, Ramble Ankumah, Richard Whittington.- Presentation: *Multi-mentoring and collaboration fosters authentic relationships to support undergraduate interns from HBCUs in ocean exploration.* GOMCON 2022 (Baton Rouge, LA) April 25-28 2022
- E Heffron - Meeting : *Nautilus Pacific Mapping Operations 2021 - 2022: What is Mapped, How Much are we Contributing, and Why is this Such a*



*Hard Question?? Seabed 2030 South & West Regional Mapping  
Community Meeting*

- Mayer, L.A. - Invited Talk: *Ocean Exploration from Deep Water Horizon to the Arctic Riverwoods*, Durham, N.H. 20 April 2022
- Yoerger, D. and Adams, A. - Seminar: *Ocean Labs Radiometer AOPE Department Seminar*
- Elmore, Mayer, Jenkins, Connon, Medley, Birch, Scholin, Soule - Symposium: *Plans for Exploring the Aleutian Island Chain Using Autonomous Surface Vehicle (ASV) Saildrone SURVEYOR in 2022 Alaska Marine Science Symposium 2022*
- Elmore, Wang, Adams, Quadara, Machado, Rodriguez, Suhre, Fundis, Soule - Session- DS07: *Suggestions for Supporting Marginalized Group Members at Sea OSM 2022*
- Wagner, D. - Oral presentation: *Summarizing the main findings of the expedition Advisory Council of the Northwestern Hawaiian Islands Coral Reef Ecosystem Reserve*
- Coleman, Gruebel, Knowlton, Pinner, Simon, Sutcliffe - Session: *Testing New Technologies and Workflows for Telepresence-Enabled Ocean Exploration OSM 2022*
- ISC/NOAA OE - Video Submission: *To summarize cloud-based media production efforts in support of NOAA Ocean Exploration as well as the Ocean Exploration Trust (during OECI- funded expeditions), the ISC Team collaborated with both NOAA Ocean Exploration Education and Communications as well as OET on a video submission. 2022 National Marine Educators Association (NMEA) annual conference*
- Mayer, L.A. - *We've Come a Long Way – Where are we Going?* Opening Keynote – Canadian Hydrographic Conference, Ottawa CA, 7 June 2022
- Mayer, L.A. - Keynote Talk: *Onboard the Nautilus Ocean Exploration Trust* Wondros Podcast Ep. 163



- Yoerger, D. and Adams, A. - Seminar: *Isolume-following with Mesobot: field trials in shallow and deep water* AOPE Department Seminar
- Beth Orcutt in collaboration with artist Michel Droge- Public lecture: NA138 Cove Street Arts in Portland, Maine. On May 26,2022
- Orcutt B. - Presentation: *A presentation summarizing data on microbial diversity from samples collected on NA138 expedition 2022* Ocean Science Meeting.
- Ocean Exploration Trust- Plenary Panel Discussion: *A white paper summarizing the collaborations between OET and the Native Hawaiian community as part of this and other expeditions to PMNM was developed for the National Ocean Exploration Forum and is available here.* Contents of this white paper were discussed. 2022 National Ocean Exploration Forum in Austin, Texas on March 29, 2022.
- Quadara, Rae, Trish Albano, Osa Idehen, Jessie Kastler, Ramble Ankumah, Richard Whittington. - Presentation: *Multi-Level mentoring and collaboration supports interns from HBCUs in ocean exploration.* UNM Mentoring Conference (Albuquerque, NM) October 24 – 28, 2022
- Quadara, Rae, Trish Albano, Osa Idehen, Jessie Kastler, Ramble Ankumah, Richard Whittington. - Presentation: *Multi-mentoring and collaboration fosters authentic relationships to support undergraduate interns from HBCUs in ocean exploration.* NMEA 2022 (Long Island, NY) July 9-14 2022
- Quadara, Rae - Presentation: *NOAA OEI Ocean Explorers Internship and Call for Collaboration* USM Coastal Operations Symposium (Long Beach, MS) August 16 2022