



Bermuda Institute  
of Ocean Sciences

**ASU** Julie Ann Wrigley  
Global Futures Laboratory  
Arizona State University

# 2023 Annual Report



Navigating **120** years  
of Ocean Science

This year marks 120 years of ocean science in Bermuda. As we celebrate this milestone and embark on a future with Arizona State University (ASU) – repeatedly ranked #1 U.S. institution in innovation, impact, and sustainability – I reflect on our progress and look ahead to new opportunities. Two years into our integration with ASU, we continue to make great strides in aligning our mission with this dynamic partnership, reinforcing our legacy while advancing new frontiers in ocean science.

We have focused on fostering unity between the ASU and BIOS communities, ensuring that our shared values and dedication to scientific discovery remain at the core of our collaboration. Our research and academic programs are being strengthened by ASU's investment and vision, positioning ASU BIOS for future growth through strategic recruitment, expanded research opportunities, and enhanced partnerships.

### **Advancing Scientific Discovery and Ocean Health**

We remain at the forefront of ocean research, tackling environmental challenges and deepening our understanding of marine ecosystems. Our scientists have been instrumental in advancing projects ranging from deploying autonomous underwater gliders to studying the marine food web in the Sargasso Sea to NASA's PACE (Plankton, Aerosol, Cloud, ocean Ecosystem) mission. Additionally, our work with deep-sea biodiversity through remote camera technology has given us an understanding of life at depths of up to 3,500 meters. Anticipating further climate-driven changes in ocean ecosystems, we remain committed to producing impactful research that informs global ocean health, sustainability, and conservation efforts.

### **Strengthening Our Academic and Educational Offerings**

The integration of ASU BIOS into the Julie Ann Wrigley Global Futures Laboratory and the School of Ocean Futures creates new avenues for student engagement and learning. Our summer courses – Research Diving Methods, Tropical Marine Ecology, and Coral Reef Ecology – have continued to attract international students and are now open to ASU students. The Fall Semester program is also moving forward, and our internship programs continue to offer transformative, hands-on experiences to global students.

### **Expanding Partnerships and Increasing Awareness**

Our efforts to recruit and strengthen institutional partnerships are showing promising outcomes, with an increase in visiting groups and collaborations. The 2023 projection for visiting groups exceeded expectations, with 381 individuals from 21 groups generating nearly \$600K in revenue.

For 2024, we anticipate continued growth, welcoming new groups such as Coastal Carolina University and College of the Holy Cross.

Ocean Academy K-12 programs have also seen strong participation, engaging students in marine science internships, ocean science camps, and Bermuda-based research experiences. Through initiatives such as Mid-Atlantic Robotics IN Education (MARINE), we continued to nurture the next generation of ocean scientists and innovators.

### **Enhancing Infrastructure and Safety**

A critical component of our integration with ASU is ensuring that BIOS's operational systems align with ASU's standards. A visit from ASU Environmental Health and Safety representatives marked an important step in integrating BIOS's chemical tracking with ASU's online systems. Furthermore, the migration of the BIOS website to ASU's Pantheon platform is underway, providing a modernized online presence with an improved user experience at bios.asu.edu.

Marine operations are operating at an all-time high. The 2023 research schedule for R/V Atlantic Explorer was the busiest to date, with 248 science days. Additionally, a committee is actively evaluating the Scientific Mission Requirements (SMR) for a future replacement vessel, ensuring we remain at the cutting edge of oceanographic research capabilities.

### **Looking Ahead**

With research expanding, partnerships increasing, and educational opportunities growing, we are poised to cement our position as a global leader in ocean science. Enhancing our reputation, building awareness, and driving enrollment will be crucial in achieving long-term sustainability and impact.

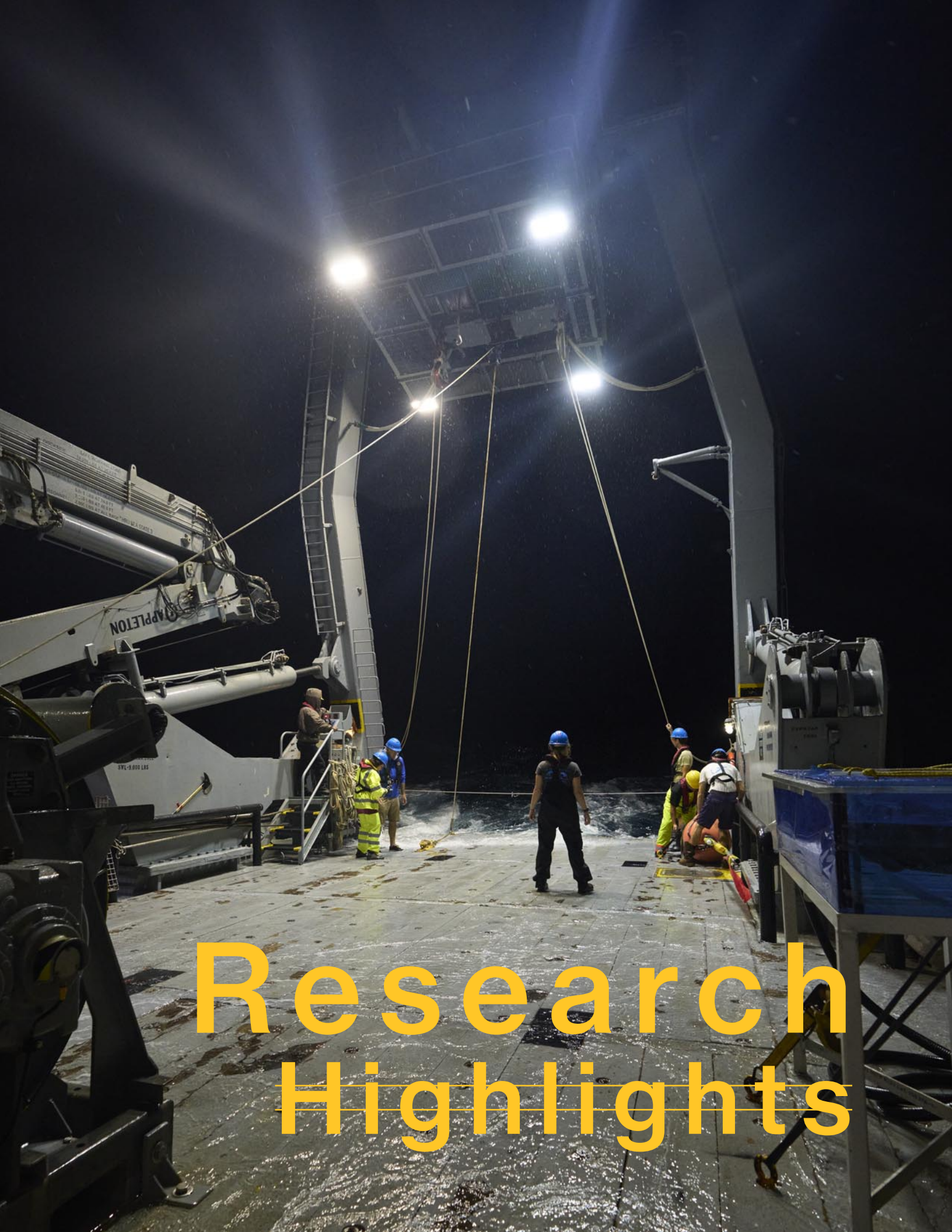
To our dedicated faculty, researchers, students, and supporters – thank you for your continued commitment to advancing ocean science. Your contributions make ASU BIOS a beacon of excellence in marine research, education, and innovation.

Sincerely,



J. William Charrier, Vice-Chair, Board of Trustees





# Research Highlights

# 2023 Year in review



## Atlantic Ocean near Bermuda is warmer and more acidic than ever, 40 years of observation show

Warmer, saltier, more acidic oceans threaten human and environmental health

A 40-year study (1983–2023) in the Sargasso Sea near Bermuda reveals significant climate-driven changes in the subtropical North Atlantic. Researchers Nick Bates and Rod Johnson found a 1°C (1.8°F) rise in surface temperature, a 30% increase in ocean acidity, and a slight rise in salinity.

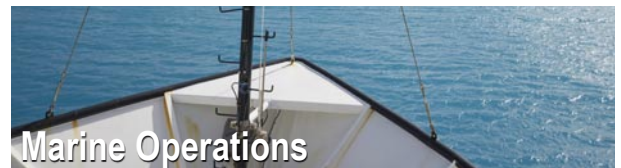
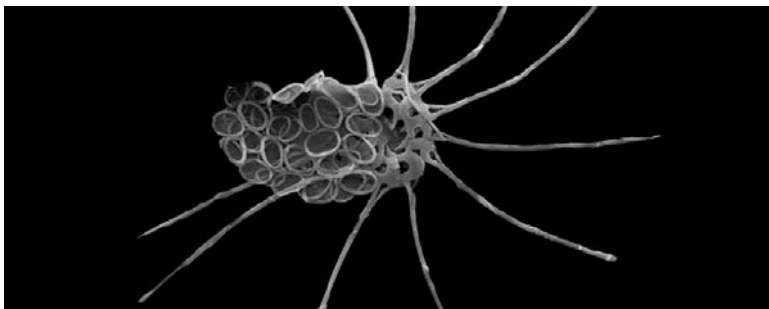
Additionally, atmospheric CO<sub>2</sub> from human activity has reduced oxygen levels by 6%. These shifts disrupt marine food chains, affecting fish, marine mammals, and seabirds, with broader consequences for human societies, including declining fisheries and rising coastal threats.

## Discovery of a New Calcifying Phytoplankton Species off Bermuda

Scientists identify a new coccolithophore species, *Calciopappus curvus*, in the Sargasso Sea near Bermuda

Although newly described in a 2023 Protist journal paper, this species had previously been observed in water samples from the North Atlantic, Mediterranean, and other global oceans.

Named for its distinctive curved appendages, *C. curvus* was unexpectedly discovered while studying phytoplankton communities. Lead author Odysseus Archontikis noted that its formal identification was made possible by a substantial collection of specimens.



## A total of 248 days at sea in 2023

In 2023, R/V Atlantic Explorer had its busiest year yet, spending 248 days at sea.

## Bermuda Air Quality

A new network of low-cost air samplers are being deployed around Bermuda for monitoring harmful air pollutants

AQMesh pods are installed alongside regulatory status instruments for comparison with methods that meet international standards for air quality monitoring.

With this network of sensors, we can create a much more detailed map of emissions and their sources, allowing us to better determine optimal placement.



# 2023 Year in review



## BIOS-SCOPE Scientists Reflect on the Project's Success – and Look Ahead to its Future

Now in its eighth year, BIOS-SCOPE is a collaborative, multi-institutional initiative bringing together scientists from Bermuda, Europe, the U.K., and the U.S. to study ocean biogeochemical cycles and the role of marine microbes in the carbon cycle.

The program fosters interdisciplinary collaboration to enhance understanding of microbial interactions across time and ocean depths. As the team prepares for its eleventh research cruise from ASU BIOS, 18 scientists and two marine science technicians continue to build both scientific knowledge and lasting professional relationships.

The project examines ocean dynamics across different spatial and temporal levels, unraveling changes throughout the water column over time.

## Animals in Ocean's Twilight Zone Thrive on Upcycled Nutrients

A study published in *Limnology and Oceanography*, reveals that zooplankton in the ocean's twilight zone rely on microzooplankton to upcycle sparse nutrients into higher-quality food. This process helps sustain the deep-sea ecosystem by transforming waste into essential resources for survival.

Researcher Amy Maas collaborated with NASA EXPORTS and BIOS-SCOPE partners on the study of the midwater twilight zone. The study highlighted how the research helps fill key knowledge gaps on microbial and zooplankton communities while building on the team's expertise in chemistry and ecology.



## PACE – Plankton, Aerosol, Cloud, ocean Ecosystem Validation

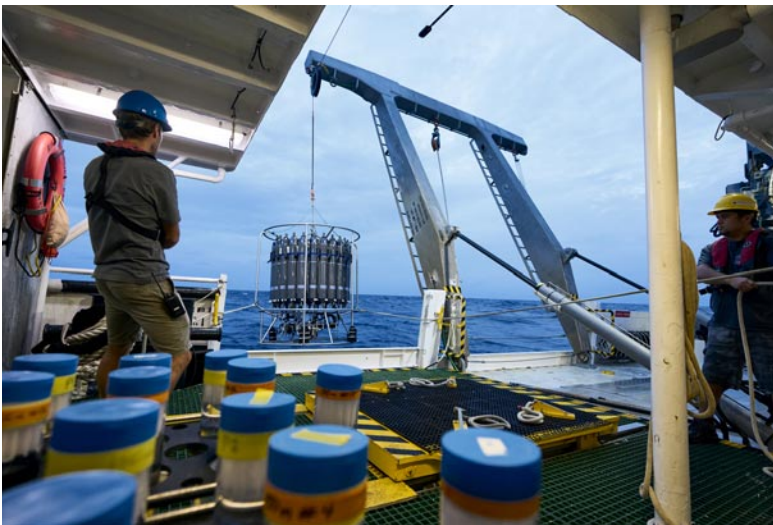
PACE's data enhances our understanding of the ocean-atmosphere exchange of carbon dioxide while also uncovering how aerosols may stimulate phytoplankton growth in surface waters.

Innovative applications of PACE data will provide economic and societal benefits. It will increase knowledge about the effect of climate change on blooms of ocean phytoplankton, as well as how particles such as dust and smoke can influence cloud formation and the warming and cooling of the planet.

By extending and advancing NASA's long-term Earth observations, PACE's state-of-the-art technology is revolutionizing how we monitor our planet's health for generations to come.

As part of the validation process, Amy Maas and Leo Blanco-Bercial will lead research focused on counting and characterizing plankton that comprise the ocean surface, while Eric Hochberg's project involves measuring light entering and leaving the ocean surface. Rod Johnson will serve as co-investigator (co-PI) on both projects, integrating the PACE work into ASU BIOS's broader Bermuda Atlantic Time-series Study (BATS) efforts and Tudor Hill AERONET measurements and datasets.

# 2023 Year in review



## Study Highlights Importance of Mineral Iron in Ocean Ecosystems

A study published in *Nature* highlights the crucial role of mineral forms of iron in regulating the oceanic cycle. Led by the University of Liverpool with collaborators from the U.S., Australia, France, and Bermuda, the research fills a key knowledge gap and sets the stage for further exploration of the links between iron and carbon cycles, as well as the impact of changing ocean oxygen levels.

Rod Johnson, co-principal investigator of the Bermuda Atlantic Time-series Study (BATS), praised a recent iron cycling study led by Peter Sedwick (Old Dominion University) for successfully integrating modeling and observations. He emphasized that the modeling work by Alessandro Tagliabue (University of Liverpool) showcases BATS's strength in developing local insights that can be scaled to the global ocean.

## Bermuda Marine Mesocosm Facility

State-of-art experimental facility reopens

- Experiments under near-natural conditions (e.g., natural sunlight and seawater)
- Manipulation of temperature, CO<sub>2</sub>, pH, nutrients, oxygen, etc.
- Assessing responses of organisms and communities to manipulations
- Organism rearing marine Carbon Dioxide Removal (mCDR) research [potential new avenue]

Recent upgrade was made possible through NSF facility grant and Heising-Simons Foundation International.

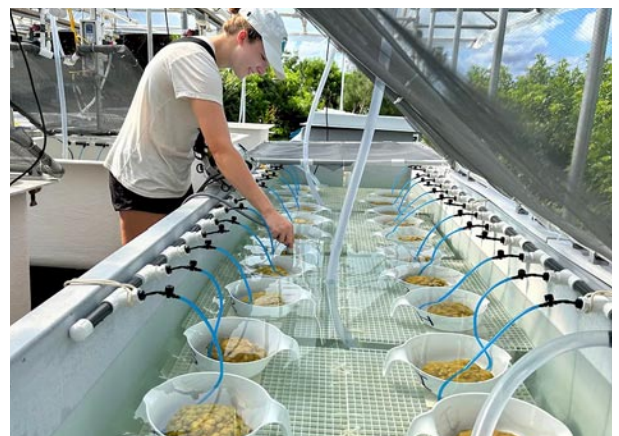
## Visual Observations of Extreme Environments

Exploring the deep: Deep-sea fish biodiversity characterization using Baited Remote Underwater Video systems

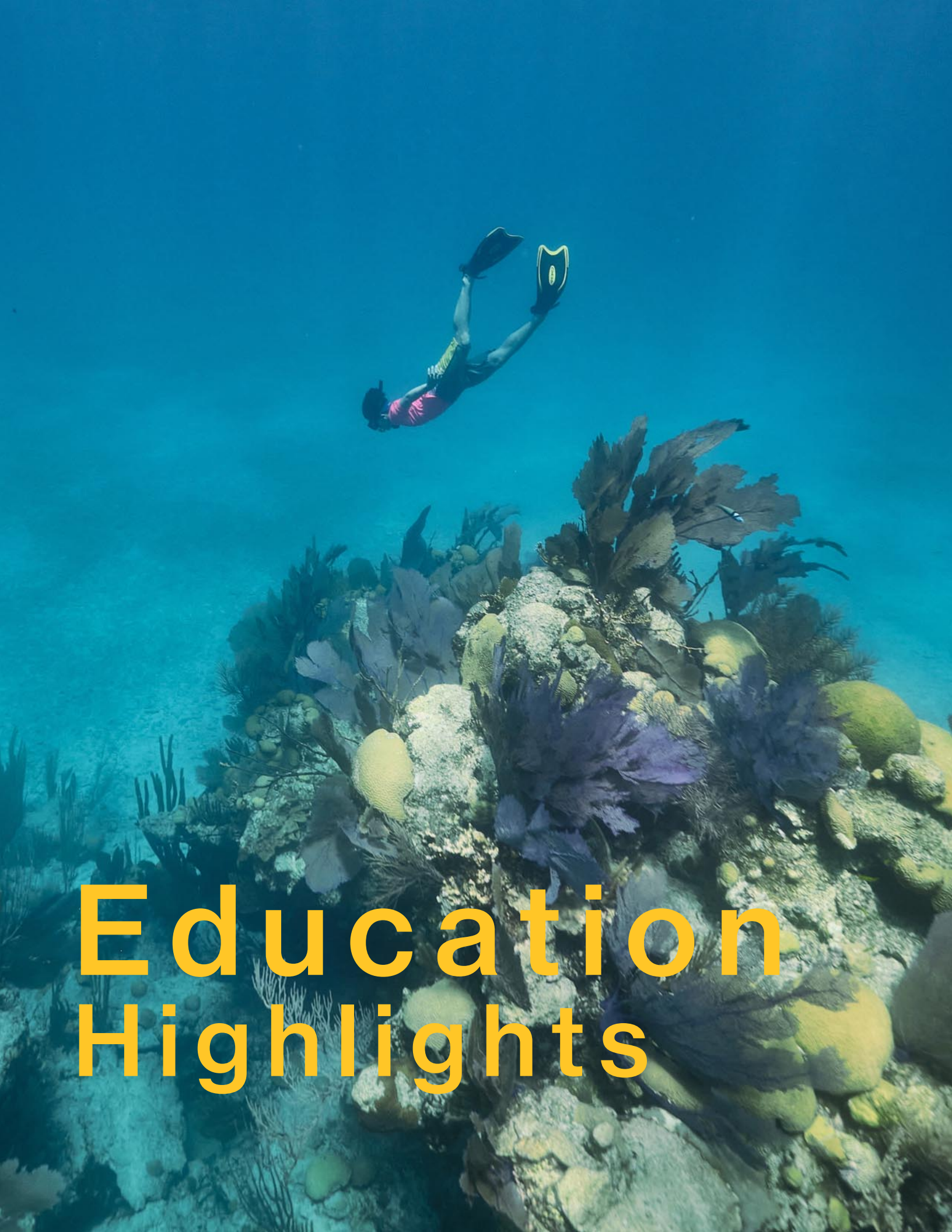
A BIOS-led two-year research project on migratory predatory fish, including sharks, in Bermuda's deep-sea waters was awarded funding through the U.K.'s Darwin Plus program. The initiative, part of a £8 million investment to address global biodiversity challenges, involves scientific, conservation, and governmental partners. As part of Bermuda's Ocean Prosperity Programme (BOPP), the study will contribute to marine spatial planning efforts, supporting the creation of protected areas covering 20% of Bermuda's exclusive economic zone.

## ENCORE – A Step on the Path Toward More Resilient Corals

Now in its second year, the ENCORE project (Enhancing Coral Resilience Against Climate Warming) is exploring ways to help corals survive rising ocean temperatures. Led by marine ecologist Yvonne Sawall and a team of scientists, ENCORE investigates strategies to boost coral thermal resistance, including "pre-conditioning" corals to tolerate more heat. The project, supported by the Heising-Simons Foundation, involves multiple researchers and students, contributing to broader efforts to protect coral reefs from climate change.







# Education Highlights



# 2023 Year in review



## Research Week Opens the World of Oceanography for C-CoMP Students

In 2023, 11 graduate and PhD-bound students arrived at BIOS for a hands-on oceanography experience through the C-CoMP Research Week. Led by BIOS and Woods Hole Oceanographic Institution (WHOI) scientists, the program provided opportunities to handle oceanographic equipment, collect samples, and explore microbial ocean processes. Funded by a \$25 million National Science Foundation (NSF) grant, C-CoMP aims to foster ocean literacy and access in marine science. Students, including members of WHOI's Bridge-to-PhD program, gained first-hand experience with deep-sea research, connecting with long-term projects like BATS. Director of Research, professor Nick Bates emphasized the program's goal of supporting young scientists in their ocean science careers.



## National Science Foundation Research Experiences for Undergraduates (REU)

In 2023 the REU cohort of nine students represented colleges and universities from six states across the U.S., including Puerto Rico.

Independent research projects were structured around three distinct themes in coral reef science. Students participated in the fall research symposium which is organized to simulate the poster session at a professional scientific conference. Students presented digital posters that cover the methods and initial results of the research projects they've been working on with faculty and research staff for eight weeks.

## University Programs

Student participation has returned to pre-pandemic levels

University Programs hosted a total of 89 students in 2023.

Three summer courses were hosted, offering hands-on experience in:

- Research Diving Methods
- Tropical Marine Ecology
- Coral Reef Ecology





# 2023 Year in review



## Senior School Students Dive into the World of Zooplankton and Food Webs Through Signature Learning Partnership

Participants gained hands-on experience which supported Cambridge curricular standards, closely aligning the experience with school learning goals

The program engaged students, ages 14 to 16, from CedarBridge Academy's Senior 1 and Senior 2 classes in hands-on STEM (science, technology, engineering, and math) learning. As part of the Ministry of Education's Signature Learning Partnership, students participated in two weeks of interactive environmental science sessions. Aligned with their biology curriculum, the program aimed to deepen their understanding of natural systems while equipping them with critical thinking skills to tackle local and global environmental challenges.



## Students Identify Organisms With 'Keys to the Ocean'

A collaboration between ASU's Ask A Biologist and BIOS educators has created Keys to the Ocean, an interactive online game that teaches students taxonomy using a dichotomous key to identify Bermuda's fish and zooplankton species. Designed by BIOS science education officer Claire Fox, the game is part of BIOS's Curriculum Enrichment Program, which includes a 2.5-hour workshop with hands-on plankton tows and microscope analysis. The project helps students develop essential scientific skills aligned with US and British education standards while fostering a deeper understanding of classification and biodiversity.

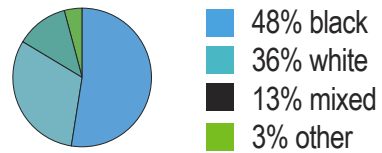
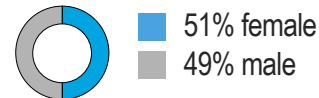
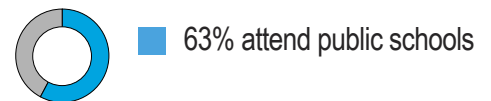
### Ocean Academy, Local Education Program



**1,395 students and teachers**

89% students      11% teachers

### Student Diversity



**\$268,000**

Awarded in financial aid



### Impact Hours

Since **2010** Ocean Academy has directly worked with over **23,000** students and educators

# Education by the numbers



## Internships

A total of 37 interns were hosted at BIOS

- Bermuda Program
- Canadian Associates of BIOS
- UK Associates of BIOS
- Eckerd Galbraith–Wardman
- Lehigh Iacocca International
- PICS Princeton internship
- Marine Advanced Technology Education (MATE) internships

## International Visiting Groups

381 students and educators

- 323 Students
- 58 Teachers
- 21 Schools/universities served
- 3 Countries groups came from
  - USA
  - Canada
  - England



Total students and their educators served  
**1,865**

Total students only  
**1,654**

Total schools / universities served  
**90**

Countries students came from  
**15**

## Local schools served

- |                            |                                   |  |
|----------------------------|-----------------------------------|--|
| 1. Gilbert Institute       | 8. CedarBridge Academy            | 15. East End Primary                     |
| 2. West Pembroke Primary   | 9. Somersfield Academy            | 16. Bermuda Institute                    |
| 3. St. Georges Preparatory | 10. Berkeley Institute            | 17. Bermuda Center for Creative Learning |
| 4. Paget Primary           | 11. Bermuda High School for Girls | 18. Clearwater Middle School             |
| 5. Sandys Middle School    | 12. Saltus Grammar School         | 19. Whitney Institute                    |
| 6. Bermuda College         | 13. Mount St. Agnes               | 20. Dellwood Middle School               |
| 7. Warwick Academy         | 14. St. David's Primary           |  |

## Universities served

- |  |   |  |
|--|---|--|
| 1. Roger Williams University                   | and Islands                                 | 37. Portland State University                    |
| 2. University of Rhode Island                  | 19. Tulane University                       | 38. University of Texas                          |
| 3. Dalhousie                                   | 20. University of Plymouth                  | 39. Iowa State University                        |
| 4. University of Havana                        | 21. University of Pennsylvania              | 40. Dartmouth College                            |
| 5. Shahid Beheshti University                  | 22. University of Oxford                    | 41. Florida International University             |
| 6. Max Planck Institute for Chemistry          | 23. University of Exeter                    | 42. University of York                           |
| 7. Colorado School of Mines                    | 24. University of Utah                      | 43. California Polytechnic State University      |
| 8. University of California                    | 25. Oregon State University                 | 44. Cape Fear Community College                  |
| 9. Los Angeles (UCLA)                          | 26. University of Washington                | 45. University of Victoria                       |
| 10. University of Birmingham                   | 27. University of Vermont                   | 46. College of William & Mary                    |
| 11. Kiel University                            | 28. Monmouth University                     | 47. Princeton University                         |
| 12. University of Algarve                      | 29. University of Western Ontario           | 48. Lehigh University                            |
| 13. Techno India University                    | 30. Bangor University                       | 49. Eckerd College                               |
| 14. Ramsar Convention for Wetlands Switzerland | 31. University of New Orleans               | 50. Acadia University                            |
| 15. McGill University                          | 32. College of Charleston                   | 51. East Carolina University                     |
| 16. University of Southampton                  | 33. University of North Carolina Wilmington | 52. London School of Hygiene & Tropical Medicine |
| 17. University at Buffalo                      | 34. Austin College                          | 53. University of Hawaii at Manoa                |
| 18. University of the Highlands                | 35. Arizona State University                |  |
|  | 36. Oakland University                      |  |



# Financial Summary

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Together, Arizona State University's Julie Ann Wrigley Global Futures Laboratory and BIOS continued intensive work to focus on full integration goals towards our shared vision in 2023. Our strategic plan centers around expanding our research and education capabilities to new possibilities while moving forward to better position ASU BIOS for decades to come.

We are extraordinarily well positioned to tackle the challenges ahead. We are ensuring the differences in international frameworks and cultures provide opportunities for our team members to synergize and achieve operational parity where possible. Special attention has been paid to developing relationships with local authorities and leaders to ensure ASU BIOS is a partner to existing institutions and organizations as a much-needed resource.

Financial Year (FY) 2023 financial developments and highlights include:

- **Investment growth of \$5.4M attributed to improved interest rates and market returns for operating and endowment holdings. Prudent liquidity and cash management provided financial efficiency through increased money market gains.**
- **BIOS ended FY 2023 with an operating activities loss of \$5M. Non-operating revenues including affiliation fees and investment returns contributed to an overall increase in net assets of \$1.86M.**
- **Operating revenues decreased by \$0.5M. Lower research revenue was offset by increases in tuition and auxiliary revenues from Visiting Groups and University Program offerings as onsite learning returned to pre-pandemic levels.**
- **Total operating expenses decreased by \$0.75M over prior year. Research expenditure decreased by \$1.2M as a non-shipyard year where drydocking costs are upwards of \$1M in those periods. The R/V Atlantic Explorer serviced an impressive 248 operating (chargeable) days.**

FY 2024 is budgeted and forecasted to reflect healthy financial performance for operations. Research operations include a major shipyard commencing in December, 2024, and extending into February, 2025. Integration plans continue to advance as we address legal and regulatory pathways to secure employment of staff as ASU employees.

ASU BIOS celebrated 120 years of oceanographic research and education in the Atlantic Ocean in 2023, made possible through multiple global partnerships and collaborations in support. We, our complete team of Board, Management, Faculty and Operational members, are confident our organization is well poised for continued success as we work hard to conduct important initiatives in the coming years.



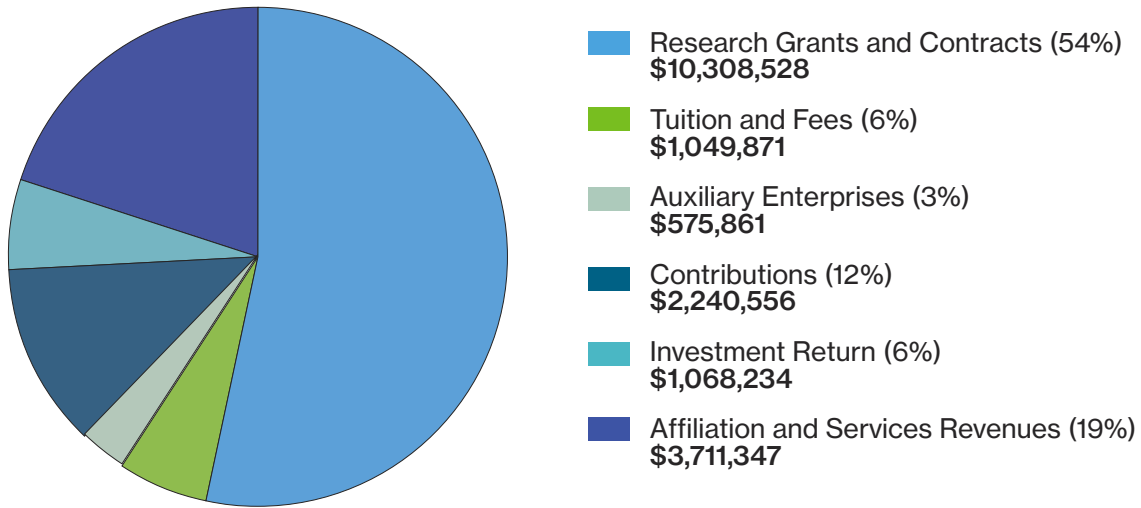
Victoria Millett  
CPA, Treasurer, and Controller

# Summary Financial Highlights

December 31, 2023

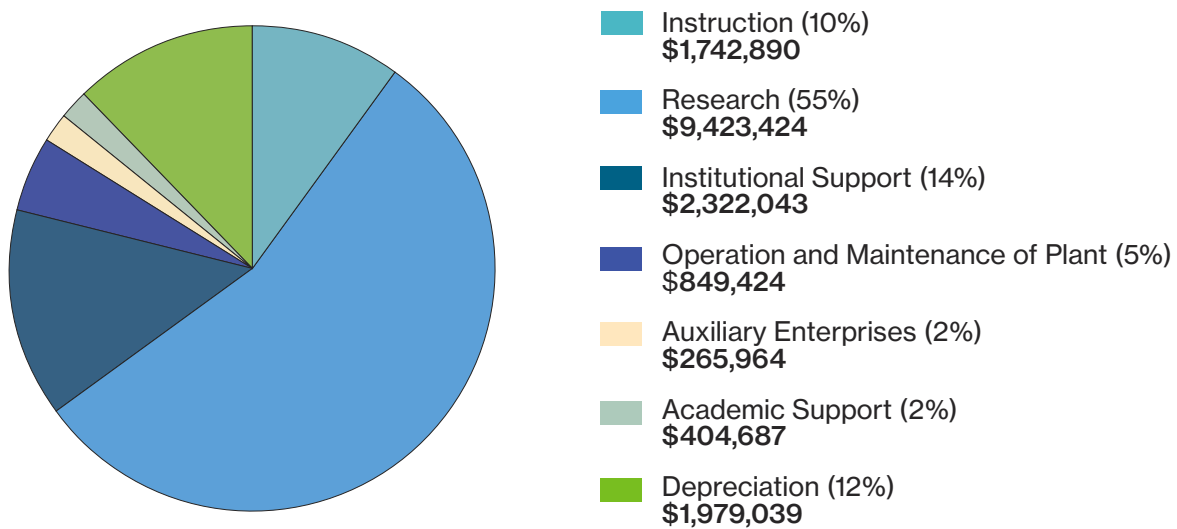
## 2023 REVENUES & SUPPORT

Operating revenue is derived from research grants and contracts (54%), tuition and fees (6%), and auxiliary enterprises (3%). All other sources of revenue are considered as nonoperating revenues.



## 2023 EXPENSES

Operating expenses include research (55%), instruction (10%), institutional support (14%), operation and maintenance of plant (5%), auxiliary enterprises (2%), academic support (2%), and depreciation (12%). All other expenses are considered nonoperating.





# Summary Financial Highlights

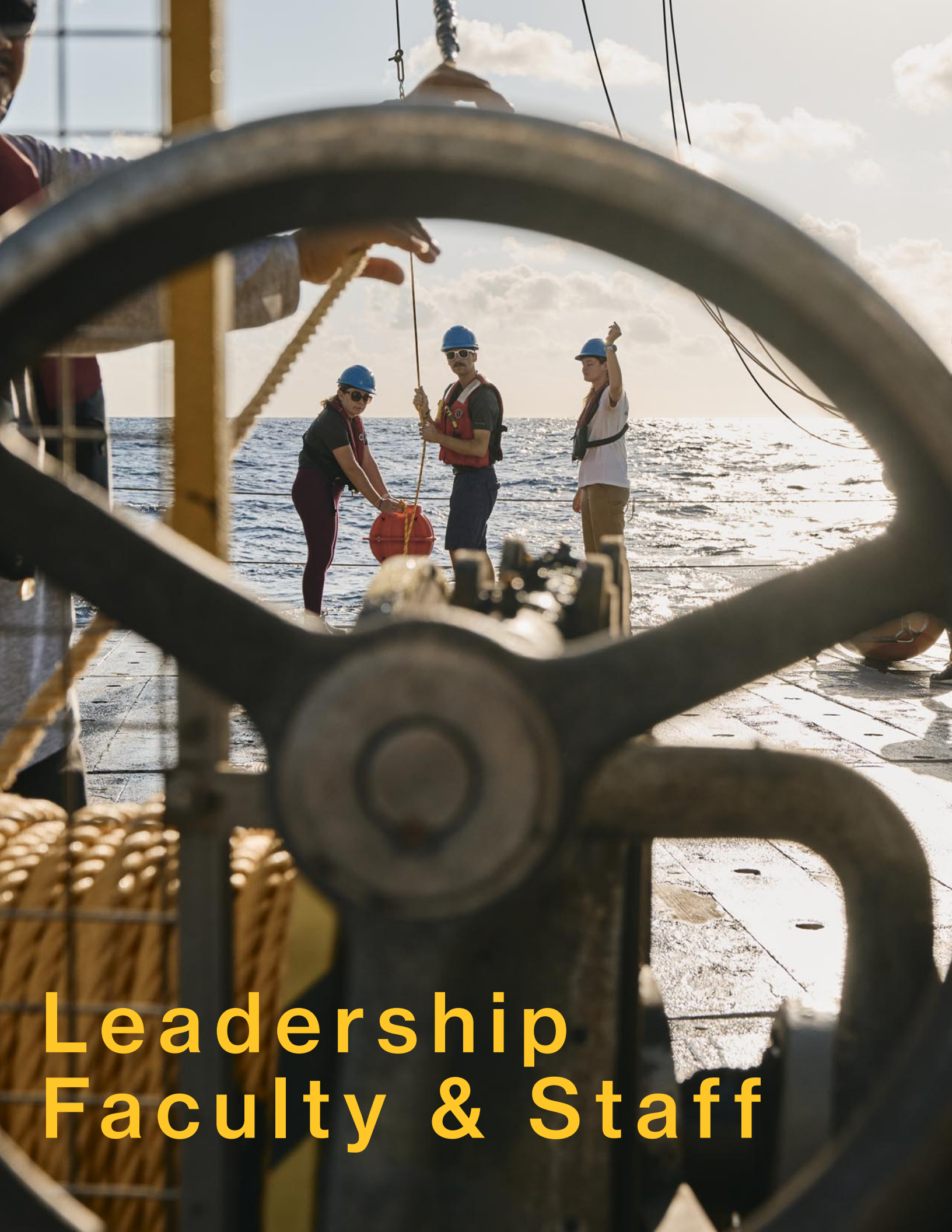
December 31, 2023

## Statements of Net Position

	2023	2022
<b>Assets</b>		
Current assets	\$ 6,792,060	\$ 7,350,392
Noncurrent assets	21,946,350	18,643,129
Capital assets, net	13,873,914	15,031,504
<b>Total Assets</b>	<b>42,612,324</b>	<b>41,025,025</b>
<b>Liabilities</b>		
Current liabilities	1,417,630	1,627,313
Noncurrent long-term obligations	740,305	807,287
<b>Total Liabilities</b>	<b>2,157,935</b>	<b>2,434,600</b>
<b>Net Position</b>		
Net Investment in capital assets	13,066,626	14,162,060
Restricted:		
Nonexpendable	10,222,241	10,194,641
Expendable	13,607,011	14,481,920
Unrestricted	3,558,511	(248,196)
<b>Total Net Position</b>	<b>\$ 40,454,389</b>	<b>\$ 38,590,425</b>

## Statements of Revenues, Expenses and Changes in Net Position

<b>Operating Revenues</b>		
Research grants and contracts	\$ 10,308,528	\$ 11,470,578
Tuition and fees	1,049,871	457,024
Auxiliary enterprises	575,861	490,828
<b>Total operating revenues</b>	<b>11,934,260</b>	<b>12,418,430</b>
<b>Operating Expenses</b>		
	<b>16,987,471</b>	<b>17,738,778</b>
Operating Loss	(5,053,211)	(5,320,348)
Total nonoperating revenues	7,022,137	6,922,585
Total nonoperating expenses	(104,961)	(3,259,565)
<b>Change in Net Position</b>	<b>1,863,965</b>	<b>(1,657,327)</b>
<b>Net Position</b>		
Net position at beginning of the year	<b>38,590,425</b>	<b>40,247,752</b>
Net position at end of the year	<b>\$ 40,454,389</b>	<b>\$ 38,590,425</b>



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Julius Barsi  
Assistant Scientist

Nicholas R. Bates, PhD  
Senior Scientist and  
Associate Director of Research

Leocadio Blanco-Bercial, PhD  
Assistant Scientist

Jonny Chapman  
Research Technician

Maureen Conte  
Associate Scientist

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Senior Lecturer and Associate  
Scientist

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Damian Grundle, PhD  
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Eric J. Hochberg, PhD  
Associate Scientist

Brett Jameson  
Postdoctoral Scientist

Elera Johnson  
Research Technician

Rodney J. Johnson, PhD  
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Amy Maas, PhD  
Assistant Scientist

Rebecca May  
Research Technician

Claire Medley  
Research Technician

Sheryl Murdock, PhD  
Postdoctoral Researcher

Tim Noyes  
Research Specialist

Rachel J. Parsons  
Microbial Observatory Lab  
Manager

Andrew J. Peters, PhD  
Associate Scientist

Yvonne Sawall, PhD  
Research Fellow

Dom Smith  
Research Technician



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Scripps Institution of  
Oceanography

Craig Carlson, PhD  
University of California, Santa  
Barbara

Steven Giovannoni, PhD  
Oregon State University

Gretchen Goodbody-Gringley,  
PhD  
Assistant Scientist

Michael W. Lomas, PhD  
Bigelow Laboratory for Ocean  
Sciences

Christa Marandino  
Asst Prof, GEOMAR  
Helmholtz  
Centre for Ocean Research  
Kiel

Philippe Rouja, PhD  
Custodian of Historic Wrecks,  
Bermuda Government

Samia Sarkis, PhD  
Senior Marine Researcher,  
Department of Conservation  
Services

Struan R. Smith, PhD  
Bermuda Natural History  
Museum

Hans Christian Steen-Larsen,  
PhD  
Researcher, Geophysical Insti-  
tute, University of Bergen

Deborah Steinberg, PhD  
Virginia Institute of Marine  
Science

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Plymouth University  
Scientific Technical Staff

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Captain

Oban Jones  
Marine Technician

Deborah Moran  
Marine Operations Coordinator

John Moore  
Marine Operations

Rory O'Connell  
Oceanographic Technical  
Services Manager

Patrick Redmond  
Captain

Lydia Sgorousl  
Senior Marine Technician

Murray Stein  
Captain & Marine  
Superintendent

Richard Verlino, III  
Port Captain

## RV Atlantic Explorer

Relief Chief Mate  
Emily Jarris  
Richard Chase

Relief Second Mate  
Jack Cano  
Cleo Reed

Relief Chief Engineer  
Jens (Mike) Kierkegaard  
Eric Hahn



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## RV Atlantic Explorer

Bernhard Schulte  
Ship-Management Co

Relief Second Mate  
George Yu

Cook  
Dexer Ojano

Cook  
Carlos Calayo

Cook  
Riggie Sanqui

Bosun  
Jojo Paitone  
Bosun  
Ronnie De Leon

Motorman 1  
Berlin Jamelo

Motorman 1  
Rodney Jumeras

Motorman 1  
Al Soliva

Able Seaman  
Jhun Mutas

Able Seaman  
Raymund Laureano

Able Seaman  
Joven De Guzman

Ordinary Seaman  
Henderson Cabading

## UNOLS Tech Pool

Gabe Matthias  
Patrick A'Hearn  
Joe McCabe  
George Aukon  
Laurie Roy  
Cambria Berger  
Ben Duncan

## Education

Samantha de Putron, PhD  
Assistant Director of University  
Programs and Senior Lecturer

Kaitlin M. Noyes  
Director of Education and  
Community Engagement

Andrew Peters, PhD  
Director of University  
Programs  
& Associate Scientist

Audrey Pope  
University Programs Internship  
Coordinator, Communications  
and Data Manager

Claire Fox  
Science Education Officer

## Operations

Jane Burrows  
Accommodation and  
Catering Manager

Tracey Byron  
Human Resources Generalist

Theodore Davis  
Maintenance Technician

Chris Flook  
Small Boats and  
Docks Supervisor

Ruth M. Heron-Watts  
Accountant

Gillian Hollis  
Assistant to the President &  
CEO and Secretary to the Board  
of Trustees

Kevin Hollis  
Facilities Manager and  
Safety Officer

Malika Hughey  
Accounting Assistant

Mukesh Kumar  
Head Chef

Michael Lee  
IT Manager

Charlene Millett  
Kitchen Assistant

Victoria Millett, CPA  
CPA Treasurer and Controller

Donika O'Mara  
Office/Room Attendant

Jahlae Outerbridge  
Financial Accountant

Carol Pitcher  
Office/Room Attendant

Helena Simoes  
Chef

Kyla Flook  
Dive Safety Officer

Antar Smith  
Network and Systems  
Administrator

Kenneth Trott  
Truck/Bus Driver

LeeAnn Tuzo  
Accounts Payable Clerk

Gregory Wade  
General Maintenance

Janice Williams  
Room Attendant / Cleaner

Kwe'shon Woods-Hollis  
Small Boats, Docks Supervisor

## Advancement, Marketing, and Communications

Tiffany Wardman  
Marketing and  
Communications

Khala Wolfe  
Development Officer







**Bermuda Institute  
of Ocean Sciences**



**Julie Ann Wrigley  
Global Futures Laboratory**

Arizona State University

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