

OceanX + OceanQuest - Around Africa Expedition 2025

Leg 2, Cape Town, ZA – Walvis Bay, NA

Weekly Report (28 February – 04 March 2025)

This leg of the expedition was dedicated to OceanX's Young Explorer Program (YEP), an initiative of OceanX Education aimed at enriching the learning experiences of college students interested in marine research and exploration. Aboard the OceanXplorer, students had the unique opportunity to explore marine science firsthand and experience how science is communicated through media.



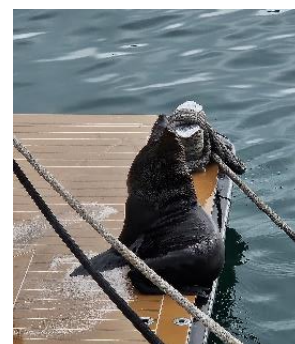
The program aims to expand access to ocean exploration, foster a new generation of ocean advocates and offer hands-on, immersive instruction to college students pursuing a degree in a related field. Participants will learn from world-class ocean scientists about the ocean genome, the tools and trades of ocean exploration, media and science communication and leadership in the field of exploration. ([about YEP](#))

14 Students from Africa, representing more than 6 different countries, participated in this five-day journey.

Day 1 [28 February]

The students arrived at Cape Town harbor in the early morning and went through the immigration process smoothly. We soon started sailing toward Walvis Bay and were greeted by whales, sealions, and penguins on our way out.

Soon enough, the program officially kicked off with icebreaker activities to introduce everyone and get the chemistry flowing between the different members.



After that, the OceanX media team and Mages agency from Singapore gave the students an interesting introduction of gaming background and the differences between VR, AR, and XR. The team demonstrated OceanX's video game and shared the background and the overall development process that took place with students.

By midday, the students took a vessel tour to get familiar with the hosting facility and were introduced to key assets.

In the evening, the students went through a recap on YEP to make sure everyone understood the program's objectives and made the most out of this life-changing opportunity.

The students were also briefed about their expected livestream assignment and were encouraged to start thinking about the topic they would like to cover. The objective is to produce a team project that runs for 20 minutes, where everyone plays a role in the production.

The day concluded with this list of activities (primarily carried out in pairs):

1. Preparation for the next day.
2. Ask students to share their "First Ocean memory" with the group. The activity was engaging and emotional, and the answers ranged from family memories to sample collections, first seasickness, and jellyfish experiences.
3. Sharing Ocean career goals and individual Goals from the program.
4. The OceanX team explains the importance of storytelling in inspiring the world since pure science talk isn't usually engaging.

Day 2 [01 March]

The day started with a discussion on Sustainable Development Goals (SDG) of the United Nations and how SDG goal #14 [\[Life Below Water\]](#) is the least funded of all 17 UN SDGs. Students better understood the challenge and the roles they would need to play to advocate for the ocean.

To support the group with their main Livestream assignment, the OceanX media team shared the practical basics of storytelling. The key covered elements were:

1. Easy language
2. Interesting
3. Emotional
4. Human Element

The students were encouraged to conduct interviews with different OceanX professionals to support them in building the skeleton of the video to better understand the business before starting of the story.

After that, the group was introduced to "scene setters" and how to build the screen with wide, medium, and tight scenes, the concept of "Variety content".

The morning session ended with the media team covering "story structure" and explaining the concept of creating a cold start and a strong hook to engage the audience.

At noon, students were invited to witness the deployment of an Argo Float. This robot dives to 2,000 meters and collects temperature, pressure, and salinity data every 10 days for about four years until its battery is drained. The data are transmitted



via satellite to publicly accessible databases. Before the float's deployment, students had the opportunity to autograph it.

Right after the Argo Float experience, the students attended a three-hour workshop on Extended Reality (XR) and the powerful Unreal Engine (UE) to better understand game development from a third-person perspective.



The students took tutorials and got their hands “dirty” developing gaming environments and using OceanX media team digital assets.

The group had the opportunity to witness the weapon-free version of the OceanX Fortnite game, in which the hero character experiences and operates various OceanX assets, including helicopters and submarines.

The gaming workshop concluded with a demonstration of the dome, OceanX’s latest digital platform designed to engage the public in physical spaces like malls, schools, and exhibitions.

To spice things up, the OceanX team organized a fun activity where the students decorated Styrofoam cups before sending them down 4,000 meters to shrink. Everyone, including the author of this report, got artistic and creative. It was eye-opening to see the impact of pressure and physically witness the change in size.

In the evening, the Young Explorers participated in a group activity and shared the best parts of their day.

By the end of the day, the group went through another preparation session for the Livestream group assignment and started plotting the initial scenario and splitting themselves into different groups.

The session closed with individuals sharing what gets them the most joy when working or learning about the Ocean.



Day 3 [02 March]

The day started by activating the mentor program and splitting the cohort into three groups to visit different departments onboard the OceanXplorer:

1. **Engine room**: After deep discussions with the Chief Engineer, the students understood the magnitude of power required to keep the vessel moving and maintenance plans. They also checked out a variety of equipment and machines, such as engines, compressors, turbochargers, boilers, pumps, and side stabilizers. They learned about the vessel's 100KL diesel capacity, which is enough to run it for three months.
2. **Scuba center**: The students explored the hyperbaric pressure chamber and learned about the facilities aboard the vessel.
3. **Science sampling**: checked under the microscope samples that were collected from recent deep ocean deployments and project findings on large screen so the whole group observe the living organisms and how they react to gentle poking.



After that, the students resumed preparations for the Livestream project and split into 5 teams: production, engineering, kitchen, deck, and interior.

OceanX media team supported the production team in splitting roles and responsibilities and made sure there was a director, camera person, producer, and lighting and audio person.

Each of the other four teams had to write a script for the section they were covering in preparation for consolidation the next day.



Later in the day, the Young Explorers got the chance to witness the entire process for CTD and ARGO deployments and completed the picture with a session on mapping with the OceanX science team. The session started with an introduction to mapping, covering its history and evolution. Then, it covered key mapping methodologies and applications. The students then went to the mission control room and saw the active screens, sophisticated control equipment, and different sonar equipment onboard the vessel.

Day 3 concluded with a session by the NASA team onboard the OceanXplorer.

The team presented the PACE program [\[about PACE\]](#) and explained the idea of calibrating satellite images with actual collected data. They then displayed and explained the HYPERPRO, a rocket-looking gadget with cameras attached that supports measuring the distribution of phyto-plankton and plants.

Finally, the students visited NASA's wet lab to check samples and saw how the team uses both filters and actual collected water in their analysis.



Day 4 [03 March]

The day started with a recap on livestreaming expectations and teamwork required and quickly shifted to the main session of the day around Ocean Justice and Public Interest Sciences.

The Young Explorers were briefed on Environmental Impact Assessments (EIA) and then discussed substandard EIA, a human rights-based lens on the Blue economy, and the difference between the Ocean economy and the Blue economy, mainly the sustainability angle.

Following that, the group went through the South Africa Wild Coast vs. SHELL case study and got introduced to the Ocean Defenders Project to demonstrate how volunteers can make a difference. [\[about the project\]](#)

After that, students learned about the most recent events and technical topics related to ocean justice and public interest, such as deep-sea mining, Fossil fuels, Hydrogen fuel, Desalination, Pollution, Fisheries, Protected areas and spatial planning, and the Blue Economy. They also learned about key steps to analyze an EIA's impacts and the most common weaknesses of EIAs. To highlight the submissions' weaknesses, they reviewed several examples of EIAs in South Africa, Kenya, India, and Namibia.

An EAI issue-spotting team exercise started, and students were given four cases to work on and share their findings with other groups. Shortly after the groups engaged in discussion, the workshop was interrupted when a school of common dolphins showed up and happily stuck around for a good 10 minutes. Then, teamwork resumed, and groups shared their findings and learned from each other.

Later in the afternoon, groups began preparing for their 20-minute live streaming activity by reviewing scripts and utilizing all the A/V equipment supplied by the Media team. The production team then held a full rehearsal and practiced with the equipment in the Media Lab.

The livestream is scheduled for next morning. With less than 20 hours left, one can see the excitement on the Young Explorer. A team's debrief took place right after the rehearsal broadcast run, and everyone felt confident and great. The evening ended with a BBQ at the aft to celebrate the YEP trip and thank the OceanXplorer crew.



Day 5 [04 March]

The thrill was evident from early morning, and everyone was excited about the Livestream. It was SHOWTIME! Everyone was anticipating 9 am to go live, and groups kept rehearsing, supported by the OceanX media team.

A Zoom link was sent to students to share with family and friends. At 9am, the Zoom livestream went smoothly, and everyone celebrated successful teamwork.



The OceanXplorer started approaching Walvis Bay right after the livestream, and we were welcomed by lively seals.

The Young Explorers got engaged in a very last reflection exercise. They were briefed about a post-expedition survey that will be shared with them to measure the effectiveness of the YEP program and collect participant feedback.

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