Top Takeaways from the 2024 Early Career Deep-Sea Expedition Leadership Masterclass

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The Masterclass, led by the Crustal Ocean Biosphere Research Accelerator (COBRA), is a 13-week virtual course to empower participants with the skills and resources needed to effectively and thoughtfully design, fund, conduct and report on research cruises, intertwined with best DEI practices. This year's Masterclass covered global deep-sea assets, building a team, writing proposals and securing funding, developing respectful concepts, preparations, thriving at sea, data management, reporting, outreach, and law and policy. An ongoing focus showed how these topics fed into fellows' dream cruise ideas. Expert support came from people in the field, including Randi Rotjan, Julie Huber, Beth Orcutt, Andrew Fisher, Geoff Wheat, and Rosalynn Sylvan, featuring weekly synchronous meetings, pre-class materials to review, asynchronous communication via Slack, and weekly collections of resources.

Fellows recounted memorable takeaways from the class:

"I really enjoyed the week on Team Science. Exploring the literature showing the impact of the choices you make when populating your scientific team pleasantly surprised me. Now I am more aware of the diverse nature of factors that contribute to the collective success of a deep-sea project."

"The week on "Introduction to Deep Data" was insightful as it demonstrated the importance of having a clear plan when navigating repositories of deep-sea data, and the challenges faced finding and using data for specific needs. I found the tools provided through this class to be highly useful in making the discovery process more accessible."

"This course was incredible; I learned a lot about deep-sea exploration, and the assets available for it, including the latest samplers. In particular, the Dream Cruise project was most useful, where we designed a deep-sea expedition from concept to final report. After this course, I hope to realize my dream project in the SW Atlantic Ocean, off Argentina."

"This class is special; it isn't something you can find in textbooks or courses. I found the "Proposal and Funding" and "Cruise Preparation" weeks to be eye-opening. Although I've participated in offshore cruises, I never had the opportunity to be part of pre-planning. Hearing first-hand experiences and tips from professionals in many different aspects while organising our "dream cruise" projects was invaluable."

"As someone working in a country where deep-sea research infrastructure, technology and expertise is limited, discussions on utilizing global assets and building equitable collaborations resonated deeply. Sessions on funding and navigating international partnerships provided insights for prospective projects. Additionally, the emphasis on respectful and inclusive planning broadened my perspective on engaging local stakeholders. This Masterclass has provided the skills needed for leading a deep-sea expedition and reinforced the importance of fostering DEIA throughout the process."

"This was the most insightful course I've taken throughout my PhD. The content was unique, and the small group, interactive sessions with experts, all-round support and one-on-one interactions fostered broad and interesting conversation. This Masterclass covered areas of the trade that are not taught and must be learnt through experience. Getting those insights in one neat package was invaluable."

2025 applications are due September 27th!

Drawing Inspiration from the Deep

Meghan Jones



Figure 1. Abyssal Grenadier, $24" \times 24"$ acrylic on canvas. Photo reference credit to Professor Jamieson of the Deep Sea Minderoo-UWA Deep-Sea Research Centre

Working primarily with acrylic on canvas Meghan Jones uses her deep appreciation and love for the natural world to enhance the biological sciences with Fine Art paintings. Her work depicts fauna from our deepest ocean habitats, either shown in situ as a descriptive portrait or used as imagery within a surrealist composition. She is obsessed with finding the beauty in the microscopic, hidden and unusual, by presenting the viewer with a unique version of an organism they might otherwise never consider. Her work is an effort to connect us all through the wonder of the natural world, and extend a call to protect and value all organisms.

Meghan is currently contracted with Rowman and Littlefield publishing house to author and illustrate a children's book about deep sea environments to be released in 2026. Tentatively titled "The Unusual Ocean: