What’s new for Voyage 2?

On the 26th of April, 20 students and 9 trainers from across Australia will gather in Hobart to begin the second CAPSTAN program. As a new addition for the second voyage, they will spend two days in an on-shore workshop getting to know each other and learning about the biological, chemical, and physical characteristics of the Great Australian Bight. The workshop will take some of the pressure off the early days at sea while many may still be struggling to find their sea legs. The extra time also ensures everyone is up-to-speed by the time we arrive on station. RV Investigator will depart Hobart on the 29th and we begin our trip towards Fremantle. We will be on site on days 3 and 4 of our 11 day voyage!

Once again this voyage brings us across the Great Australian Bight, the largest sector of the southern Australian continental margin. The region is dominated by cool-water carbonate sedimentation, a relatively unique environment in the global ocean. Very few cool-water carbonates exist worldwide as they can only form in regions with a dearth of terrestrial input and shallow enough to remain above the carbonate compensation depth. This trip we will be stopping along the eastern edge of the bit, near the outer continental shelf just southeast of Portland, Victoria.
Why specifically these canyons off Portland? These waters are acclaimed as the Bonney Upwelling Region, the productivity making the region one of only two known blue whale feeding grounds in Australian waters. The peak of the upwelling occurs in the spring, as dominant winds shifts and Ekman transport resulting from the south easterlies sends surface water offshore pulling deep Antarctic waters to the surface. Sub-marine canyons scatter the shelf and slope in this region. As we saw in the Bremer region on voyage 1, canyons exert influence over the physical ocean circulation, sediment distribution, and biochemistry of the region. In the same region, we can examine the cool water carbonate turbidite sequences. As with voyage 1, we are looking forward to a cross-disciplinary trip of coring, CTDs, plankton tows, hydrochemistry, observing mammal and bird visitors, and maybe even some underwater camera tows.

CAPSTAN is led by Macquarie University, supported by the CSIRO Marine National Facility, and governed by a network of leading industry and university partners.

Meet our Chief Scientist:  
Dr Leah Moore  
You may remember Leah as our co-Chief Scientist from voyage 1! Leah is an Associate Professor at the Institute of Applied Ecology at University of Canberra and in the Research School of Earth Sciences at Australian National University. With extensive sea-time experience, Leah’s expertise includes sedimentology, whole of catchment biophysical characterization, ground water connectivity, clay mineralogy, and subaqueous volcanism. She also specializes in science education and communication.

Meet a 2019 participant!  
Jessica Bolin will be one of our students on voyage 2. Jessica is a honors student at the University of the Sunshine Coast in Queenstown, where she conducts datadriven research to determine the associations between oceanographic processes and humpback whale entanglement in shark-control nets. She plans to pursue a PhD in biophysical oceanography with the goal of developing sustainable fisheries practices and influencing policy in this area.

Jessica is excited to experience first-hand how oceanographic data is conducted on board RV Investigator as a student participant in the CAPSTAN program. She is confident that this experience will help her gain the skills necessary to communicate her science and form the collaborations necessary to achieve these goals!

Follow the voyage blog (https://voyage9181.wordpress.com/) to hear more from Jessica as Voyage 2 gets underway in a couple of short months! Jessica’s participation is made possible by generous contribution of MARGO to support student mobility.

We want to hear from you!  
Are you a past student or trainer for CAPSTAN? Have you been back out to sea since the CAPSTAN voyage? Did you publish a cool marine science related paper? We’d love to feature a story from you in an upcoming newsletter.