

Vanessa O'Brien

SES Honorary Advisory Board member reaches the bottom of the World

WHERE?

Challenger Deep (CD) is the deepest point of the ocean, 10,925 meters, located 200 miles southwest of Guam in the Pacific Ocean.

WHY?

Vanessa first became interested in CD after meeting Don Walsh, who, with Jacques Piccard became the first man to reach CD in 1960. One of Don's regrets was that 'no one followed him'. It would take James Cameron 52 years to reach CD in 2012 and neither of their submersibles were capable of a second dive. Eight tons of pressure made any expedition, manned or unmanned, seemingly impossible.

HOW?

Vanessa believes in setting intentions, as the universe can conspire in unusual ways. She ended many interviews saying she would like to dive to CD, despite no vehicle in existence and a price tag she couldn't afford. She received a phone call from a retired Canadian submariner early in January 2020, who suggested she contact Victor Vescovo. Victor had not only built a submersible called Limiting Factor, but he became the third person to reach CD in 2019. Ironically, she had also met Victor, seven years prior, at an American Alpine Club event that honoured them both for their Seven Summits. Turns out Victor was interested in continuing ocean research.

WHEN?

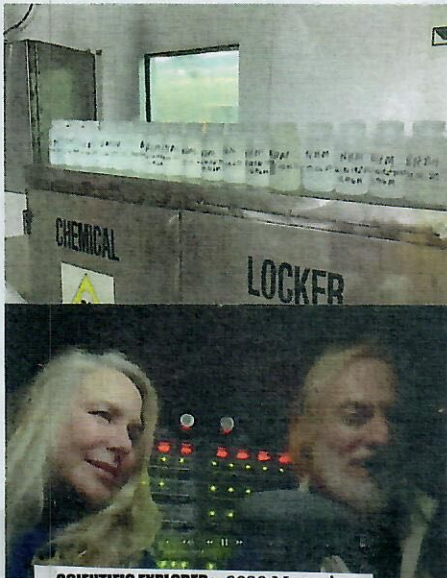
By March, Vanessa started training in bathymetry and learning how to operate an external robotic arm to collect rock samples. Victor established a partnership with NOAA to confirm survey data, and she reached out to the Natural History Museum (NHM) to provide water samples. NHM scientists had discovered single cell organisms were unable to grow their shells due to ocean acidification when comparing water samples today versus 150 years ago. Today's samples could be the next comparison 150 years from now.

WHAT?

June 2020 saw their expedition take 11 hours – 4 to descend, 3 to survey the bottom, and 4 to ascend. Just one long summit. Similar to mountaineering in Vanessa's book: both took place in the dark, neither were natural environments to breathe in, both got you wet (precipitation or condensation), both were cramped (tent or sub), both require a fixed position (standing or sitting), were cold, made communications difficult (sub / ship vs person / base), required extreme focus (looking for objects vs avoiding crevasses / avalanches), and had a goal (top / return vs bottom / return).



TOP: Water Samples Taken at 10,916 meters for NHM (photo by Durdana Ansari)
 BOTTOM: Vanessa and Victor approach the bottom (screenshot by Vanessa)



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Vanessa giving 'Thumbs Up' after her dive (photo by Enrique Alvarez)

