

CURRENT POSITIONS

- 2016- present **CEO & Co-Founder** The Hydrous (www.thehydro.us)
2018- present **National Geographic Explorer**
2019-present **Senior Designer** People Rocket (www.peoplerocket.com)

EDUCATION

- Ph.D. **James Cook University** Australian Research Council Centre of Excellence for Coral Reef Studies, 2014
M.App.Sci **University of Sydney** Coastal Management, 2007
B.A. **Duke University** Biology (minor in Art History), 2006

SELECTED EXPERIENCE

- 2018-2021 **Lecturer** Stanford University Hasso Plattner Institute of Design (the d.school)
2020-2021 **Teaching Faculty** Harvard University Extension School, Design Thinking
2019-present **National Science Foundation Grant**
Co- Principle Investigator of a Pilot and Feasibility Study “Advancing Ocean Literacy through Immersive Virtual Reality” in collaboration with the Virtual Human Interaction Lab at Stanford University.
2017- 2020 **Coral Digitization** The Smithsonian, Washington DC
Collaborated with the Smithsonian Digitization Program Office and the National Museum of Natural History to digitize coral reef specimens and distribute the resulting 3D models to researchers, educators, and artists.
2018- 2019 **Ocean Design Fellow** Stanford University d.school & Stanford Center for Ocean Solutions
Developed and delivered an experiential course ‘Oceans by Design’ at the d.school and taught a workshop ‘Possible Future Livelihoods’ at the World Economic Forum Center for the Fourth Industrial Revolution.
2017-2019 **Executive Producer & Director** *Immerse VR*
Led the creation of a VR/360 stereoscopic dive on coral reefs. Recipient of an Epic Games Development Grant. Premiered at the International Ocean Film Festival in San Francisco. Official Selection of the Oxford International Film Festival (UK). Available for free on digital platforms (e.g. Oculus Store, YouTube, Vive Video).
2015-2016 **California Academy of Sciences** San Francisco, CA
Research Assistant to the Chief of Science. Organized the 2016 Women in Science Summit
2014 **Thinc Design** New York City, NY
Interpretive Planner. Assisted designers to develop new exhibits for the Seattle Aquarium.
2008-2010 **Byrne Lab** University of Sydney, Australia
Research Assistant to Professor Maria Byrne. Planned and conducted extensive fieldwork at One Tree Island Research Station and on board the RV Southern Surveyor (CSIRO). Taught undergraduate and Masters students.
2008-2009 **Plunge Diving** Sydney Harbor, Australia
Divemaster. Handled equipment, led dives, and taught divers about marine environments.
2006 **EHDD Architecture** San Francisco, CA
Research Assistant. Calculated embodied carbon for EHDD-designed buildings under the supervision of LEED accredited architects. Developed strategies for teaching global climate change as part of a proposed museum.
2005 **Monterey Bay Aquarium** Monterey, CA
Intern for the Conservation and Education. Trained guides in ocean science, promoted sustainable seafood. Assisted research and husbandry staff.

PEER-REVIEWED PUBLICATIONS

17. Baird AH, Guest JR, Edwards AJ **Woolsey ES**, Yamamoto HH & Yusuf S (2021) An Indo-Pacific coral spawning database. *Scientific Data* 8: 35
16. Fauville G, Queiroz ACM, **Woolsey ES**, Kelly JW, Bailenson JN (2021) The effect of water immersion on vection in virtual reality. *Scientific Reports* 11: 1022
15. Keith SA, Baird AH, Hobbs JP, **Woolsey ES**, Naruse T, Trono R, Fudley, and Sanders NJ (2018) Synchronous behavioural shifts in reef fishes linked to mass coral bleaching. *Nature Climate Change* 8: 986-991
14. Baird AH, Keith SA, **Woolsey E**, Yoshida R, and Naruse T (2017). Rapid coral mortality following unusually calm and hot conditions on Iriomote, Japan. *F1000Research*, 6:1728
13. Ainsworth T, Bridge T, Torda G, Raina JB, Gates R, Padilla-Gamiño J, Spalding HL, Smith C, **Woolsey ES**, Krause L, Bourne DG, Bongaerts P, Hoegh-Guldberg O, and Leggat W (2015). The coral core microbiome identifies rare bacterial taxa as ubiquitous endosymbionts. *International Society for Microbial Ecology (ISME) Journal* doi: 10.1038/ismej.2015.39
12. Baird AH, Gudge S, Keith SA, Tan C, and **Woolsey ES** (2015). Coral reproduction on a high latitude reef: Lord Howe Island, Australia. *Aquatic Biology* 23: 275-284
11. Keith SA, **Woolsey ES** and Baird AH (2015). Differential establishment potential of species drives a shift in coral assemblage structure across a biogeographic barrier. *Ecography* doi: 10.1111/ecog.01437
10. **Woolsey ES**, Keith SA, Byrne M, Schmidt-Roach S and Baird AH (2015). Latitudinal variation in thermal tolerance thresholds of early life stages of corals. *Coral Reefs* 34: 471-478.
9. de Bérigny Wall C, Gough P, Faleh M, and **Woolsey E** (2014). Tangible user interface design for climate change education in interactive installation art. *Leonardo* (MIT Press).
8. **Woolsey ES**, Byrne M and Baird A (2013). The effects of temperature on embryonic development and larval survival in two scleractinian corals. *Marine Ecology Progress Series* 493: 179-184
7. **Woolsey ES**, Byrne M, Beaman R, Williams S, Pizarro O, Bridge T, Thornborough K, Davies P and Webster J. (2013). *Ophiopsila pantherina* beds on subaqueous dunes off the Great Barrier Reef. In *Echinoderms in a Changing World*. C. Johnson et al (eds). See: <http://www.deepreef.org/publications/book/138-brittlestar.html>
6. Schmidt-Roach S, Miller K, **Woolsey ES**, Gerlach G and Baird A (2012). Spawning by *Pocillopora* species on the Great Barrier Reef. *PlosOne* 7(12): e50847. doi:10.1371/journal.pone.0050847
5. **Woolsey E** (2012). Self-fertilization suppresses thermal tolerance in embryos of reef-building coral. *Proceedings of the 12th International Coral Reef Symposium*, Cairns, Australia, 9-13 July 2012.
4. **Woolsey E**, Bainbridge S, Kingsford M and Byrne M (2012). Impacts of Cyclone Hamish at One Tree Reef: integrating environmental and benthic habitat data. *Marine Biology* 159: 793-803.
3. Schneider K, Silverman J, **Woolsey E**, Eriksson H, Byrne M and Caldeira K (2011). Potential influence of sea cucumbers on coral reef CaCO₃ budget: a case study at One Tree Reef. *Journal of Geophysical Research – Biogeosciences*. Vol. 116, Issue G4
2. Byrne M, Selvakumaraswamy P, Ho MA, **Woolsey E** and Nguyen HD (2011). Sea urchin development in a global change hotspot, potential for southerly migration of warm adapted propagules. *Deep Sea Research II* 58: 712-719.
1. Webster J, Beaman R, Bridge T, Davies PJ, Byrne M, Williams S, Manning P, Pizarro O, Thornborough K, **Woolsey E**, Thomas A and Tudhope A (2008). From corals to canyons: the Great Barrier Reef margin. *Eos* 89: 217-218.