

1. Name

Steven D'Hondt

2. Employer

Graduate School of Oceanography, University of Rhode Island (URI)

3. City, State and Country

Narragansett, RI, USA

4. Employment History

2000-present	<i>Professor</i> , URI Graduate School of Oceanography (GSO)
2011-2012	<i>Interim Dean</i> , URI GSO
1995-2000	<i>Associate Professor</i> , URI GSO
1989-1995	<i>Assistant Professor</i> , URI GSO

5. Degrees

Princeton University, Geological and Geophysical Sciences, Ph.D. (1990)
Stanford University, Geology, B.S. (1984)

6. Narrative of Research Experience

My major research focus has always been in biogeosciences. However, over time, my focus has shifted significantly within biogeosciences, from paleobiology to geomicrobiology. Since 2000, my primary focus has been study of microbial life in deep seafloor ecosystems. Before 2000, my primary focus was the study of life in ancient oceans, with particular attention to the biological and environmental consequences of large asteroid or comet impacts. Study of large-scale marine biogeochemical processes has been a continuous research thread throughout my career.

To meet my primary research objectives, I have long been active in the international scientific drilling community. My most prominent field projects were the first scientific drilling expeditions to be primarily focused on seafloor life: Ocean Drilling Program Leg 201 (which I co-led with Bo Barker Jørgensen in 2002) and Integrated Ocean Drilling Program Expedition 329 (co-led with Fumio Inagaki in 2010).

From 2001 to 2006, I led the Subsurface Biospheres team of the NASA Astrobiology Institute. This experience greatly deepened my appreciation for an even broader range of topics in biogeosciences, including planetary biosignatures and the possibility of life on other worlds.

7. Short list of key publications [10 examples, from 70 publications in peer-reviewed journals, plus 10 in peer-reviewed books (I/ODP)].

- Kallmeyer, J., R. Pockalny, R. Adhikari, D.C. Smith and S. **D'Hondt**, 2012. Global distribution of seafloor sedimentary biomass, *Proceedings of the National Academy of Science (PNAS)* 109(40), 16213-16216.
- Røy, H., J. Kallmeyer, R.R. Adhikari, R. Pockalny, B.B Jørgensen and S. **D'Hondt**, 2012. Aerobic microbial respiration in 86-million-year-old deep-sea red clay, *Science* 336 (6083), 922-925, DOI: 10.1126/science.1219424.
- Lomstein, B.A., A.T. Langerhuus, S. **D'Hondt**, B.B. Jørgensen and A.J. Spivack, 2012. Spore abundance, microbial growth and necromass turnover in deep seafloor sediment, *Nature* 484, 101–104, doi:10.1038/nature10905.
- D'Hondt**, S., F. Inagaki, C.A. Alvarez Zarikian, and the Expedition 329 Scientists, 2011. South Pacific Gyre Seafloor Life, *Proceedings IODP*, 329: Tokyo (Integrated Ocean Drilling Program Management International, Inc.). doi:10.2204/iodp.proc.329.2011.
- D'Hondt**, S., and 11 others. 2009. Seafloor sedimentary life in the South Pacific gyre, *PNAS* 106(28): 11651-11656.
- Jørgensen, B.B., and S. **D'Hondt**, 2006. A starving majority deep beneath the seafloor, *Science* 314, 932-934.
- D'Hondt**, S., Jørgensen, B.B., Miller, D.J., and 32 others. 2004. Distributions of microbial activities in deep seafloor sediments, *Science* 306: 2216-2221.
- D'Hondt**, S., Rutherford, S., Spivack, A.J. 2002. Metabolic activity of the subsurface biosphere in deep-sea sediments, *Science* 295: 2067-2070.
- Rutherford, S.D., S. **D'Hondt**, and W. Prell, 1999. Environmental controls on the geographic distribution of zooplankton diversity, *Nature* 400, 749-753.
- D'Hondt**, S., P. Donaghay, J.C. Zachos, D. Luttenberg, and M. Lindinger, 1998. Organic carbon fluxes and ecological recovery from the Cretaceous/Tertiary mass extinction, *Science* 282, 276-279.

8. Honors

- | | |
|-----------|--|
| 2011-2012 | Ocean Leadership Distinguished Lecturer |
| 2001 | University of Rhode Island Outstanding Contributions to Research Award |
| 1999 | JOI-USSAC Distinguished Lecturer. |

9. Professional Society Memberships

American Geophysical Union, Geochemical Society, Society for Applied Microbiology