

Jan Rines, PhD
Associate Marine Research Scientist & Professor in Residence
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Education:

B.S., Botany, University of Rhode Island, 1978
M.S., Oceanography, University of Rhode Island, 1985
Ph.D., Oceanography, University of Rhode Island, 1994
Continuing Education Certificate Degree in Digital Video Production (435 contact hours), Rhode Island School of Design, 2008.

Research Interests:

Phytoplankton taxonomy and natural history, with special emphasis on the diatom genus *Chaetoceros*. Phytoplankton ecology, ‘form & function’ and biological-physical-optical interactions. Fine-scale distribution of phytoplankton in the coastal ocean from a species-specific perspective, placed within an interdisciplinary oceanographic physical-optical-chemical framework.

Synergistic Activities:

2006 – Invited Host: Visualizing the Microscopic Marine World: a Luncheon and Roundtable Discussion (Boston) – Sloan Foundation, with affiliation to the Census of Marine Life.
2002 – New Technologies for Observing Phytoplankton. Invited Presentation to SCOR Working Group 118: New Technologies for Observing Marine Life. Lima, Peru, October 28-31.
2001 – Invited Chair – Working Group on Small Pelagic Organisms, Census of Marine Life, Pilot Study in the Gulf of Maine. J. Erik Johnsson Woods Hole Center of the National Academy of Sciences, May 9 – 10, 2001.
2001 – Panel Participant – Working Group on Small Pelagic Organisms, Census of Marine Life, Pilot Study in the Gulf of Maine. J. Erik Johnsson Woods Hole Center of the National Academy of Sciences, April 2001.

Selected Publications:

Rines, J.E.B., McFarland, M.N., Donaghay, P.L., Sullivan, J.M. (in prep) – Observations on a novel *Haslea* Simonsen (Bacillariophyceae) bloom I. Ecology and oceanography.

- Rines, J.E.B.** and McFarland (in prep) – Observations on a novel *Haslea* Simonsen (Bacillariophyceae) bloom II. Taxonomy.
- Rines, J.E.B.**, McFarland, M.N., Donaghay, P.L., Sullivan, J.M. (in prep) – The role of thin layer formation in the sexual reproduction of the planktonic diatom *Chaetoceros concavicornis* in Monterey Bay, California.
- Talapatra, Siddharth, Hong, Jiarong, McFarland, Malcolm, Nayak, Aditya R., Zhang, Cao, Katz, Joseph, Sullivan, James, Twardowski, Michael, **Rines, Jan**, Donaghay, Percy (2013) – Characterization of biophysical interactions in the water column using *in situ* digital holography. Marine Ecology Progress Series 473: 29-51.
- Sullivan, J., Twardowski, M., Donaghay, P., **Rines, J.**, McFarland, M., Talapatra, S., Katz, J., Churnside, J., Weidemann, A. (2012) – Biological thin layers: history, ecological significance and consequences to oceanographic sensing systems. *Proc. SPIE* 8372, Ocean Sensing and Monitoring IV, 83720U (June 12, 2012); doi:10.1117/12.921156
- Graff, J.R., **J.E.B. Rines** and P. Donaghay (2011) – Enumeration of marine bacteria attached to phytoplankton and factors regulating attachment. Marine Ecology Progress Series 441: 15-24.
- Rines, J.E.B.**, M.N. McFarland, P.L. Donaghay & J.M. Sullivan (2010) – Thin layers and species-specific characterization of the phytoplankton community in Monterey Bay, California, USA. Continental Shelf Research 30: 66-80. doi:10.1016/j.csr.2009.11.001
- Rines, J.E.B.**, M.N. McFarland, P.L. Donaghay, J.M. Sullivan, J.H. Churnside & A. Weidemann (2010) – Characterization of a novel diatom bloom (*Haslea* cf. *wawrikan*) with scanning flow cytometry. AGU Ocean Sciences/ASLO/TOS meeting, Portland, Oregon. BO45J-13.
- Sullivan, J.M., P.L. Donaghay & **J.E.B. Rines** (2010) – Coastal thin layer dynamics: consequences to biology and optics. Continental Shelf Research 30: 50-65. doi:10.1016/j.csr.2009.07.009
- Sullivan, J.M., E. Swift, P.L. Donaghay & **J.E.B. Rines** (2003) – Small-scale turbulence affects the division rate and morphology of two red-tide dinoflagellates. Harmful Algae 2: 183-199. doi:10.1016/S1568-9883(03)00039-8
- Rines, J.E.B.** & E.C. Theriot (2003) – Systematics of Chaetocerotaceae (Bacillariophyceae) I. A phylogenetic analysis of the family. Phycological Research 51: 83-98.
- Rines, J.E.B.**, P.L. Donaghay, M.M. Deksheniaks, J.M. Sullivan & M.S. Twardowski (2002) – Thin Layers and Camouflage: Hidden *Pseudo-nitzschia* populations in a fjord in the San Juan Islands, Washington USA. Marine Ecology Progress Series 225: 123-137. doi:10.3354/meps225123
- Allredge, A.L., Cowles, T.J., MacIntyre, S., **Rines, J.E.B.**, Donaghay, P.L., Greenlaw, C.F., Holliday, D.V., Deksheniaks, M.M., Sullivan, J.M., v. Zaneveld, J.R. (2002) – Occurrence and mechanisms of formation of a dramatic thin layer of marine snow in a shallow Pacific fjord. Marine Ecology Progress Series 233: 1-12. doi:10.3354/meps233001
- Rines, J.E.B.**, P. Boonruang & E.C. Theriot (2000) – *Chaetoceros phuketensis* sp. nov. (Bacillariophyceae). A new species from the Andaman Sea. Phycological Research 48: 161-168. doi:10.1046/j.1440-1835.2000.00195.x
- Rines, J.E.B.** (1999) - Morphology and taxonomy of *Chaetoceros contortus* Schütt 1895, with preliminary observations on *Chaetoceros compressus* Lauder 1864 (subgenus Hyalochaete, section Compressa). Botanica Marina 42: 539-551.
- Rines, J.E.B.** & P.E. Hargraves (1988) - The *Chaetoceros* Ehrenberg (Bacillariophyceae) Flora of Narragansett Bay, Rhode Island, U.S.A. Bibliotheca Phycologica 79, 196 pp.