

Vitae

Eric D. Schneider
Box 1017
Livingston MT, 59047
eric@intothecool.com

I. Education

1962 BS, Geology, University of Delaware, Honors

1965 MS, Marine Geology, Columbia University, Lamont-Doherty Geological Observatory

1969 Ph.D., Marine Geology, Columbia University, Lamont-Doherty Geological Observatory

II. Professional Background

1993- PRESENT **Research Scientist: Thermodynamics and life.**

My research is a synthesis of physics and biology at the fundamental level. Specifically I am studying the intersection of thermodynamics with life. I am attempting to develop the underlying principles that will explain the development and the causality of the patterns observed in ecosystems and evolution. This research is investigating measures of ecosystem development and human sustainability. Study of these systems show self similar processes with nonliving systems. During the past decade I have been engrossed in the writing of *Into the Cool*.

1991 -1993 **Senior Research Scientist**; National Ocean Service, National Oceanic and Atmospheric Administration, (NOAA). Coordinated High Latitude Global Climate research.

1989-1991 **Chief Scientist: National Ocean Service, NOAA.** Senior scientific and technical director of the Coast and Geodetic Survey, National Marine Sanctuaries coastal pollution monitoring.

1985- 1988 **Senior Research Scientist**, Chesapeake Biological Laboratory, University of Maryland Center for Environmental and Estuarine Studies,

Solomons, MD. Research.

1982 - 1985 **Senior Scientific Assistant to the Administrator, (Chief Scientist), National Oceanic and Atmospheric Administration, (NOAA);** Washington D.C. . Senior scientific advisor to the Administrator of NOAA. Scientific coordination of the 1.2 billion dollar science program of the National Ocean Service, the National Weather Service, the National Marine Fisheries Service and the National Satellite and Information Service.

1979 - 1982 **Research Fellow**, Center for Ocean Management Studies, University of Rhode Island, Kingston, R.I.. Research and teaching.

1972 - 1979 **Director, National Marine Water Quality Laboratory, United States Environmental Protection Agency (U.S. E.P.A.),** Narragansett, R.I.. Directed the nations largest marine pollution research laboratory. Water quality standards, monitoring.

1971 - 1972 **Director, Science and Policy Office, U.S. Environmental Protection Agency,** Washington, D.C. Developed and coordinated science policy for the Asst. Administrator.

1967 - 1971 **Director, Global Ocean Floor Analysis and Research Center, U.S. Naval Oceanographic Office,** Washington, D.C. Director of a small (40 employees) geophysical research laboratory for the United States Navy. The laboratory studied geophysical, geological, chemical and oceanographic processes of the deep sea.

Selected Papers

Schneider E.D. 2004. Gaia: Toward a thermodynamics of life. *In Scientists debate Gaia*, Eds. Schneider S.H., Miller R.M., Christ E. and J.R. Miller. MIT Press. pp 45-56

Schneider E. D., and J..J. Kay 1995. Order from disorder: the thermodynamics of complexity in biology. In, Murphy M. P. and L. A. O'Neil (ed), *What is life: the next fifty years*. Cambridge, Cambridge Univ. Press, pp. 161-173.

Schneider E.D. and J..J. Kay 1994 Life as a manifestation of the second law of thermodynamics, *Mathl. Comput. Modeling*. Vol. 19, no 6-8, pp. 25-48.

Schneider, E.D. and J. Kay 1994 Complexity and thermodynamics: towards a new ecology. *Futures* 26 (6) pp. 626-647.

Kay, J.J. and E.D. Schneider 1992. "Thermodynamics and measures of ecosystem integrity" in *Ecological Indicators*, Volume 1, Ed. D.H. McKenzie, D.E. Hyatt, V.J. Mc Donald pp. 159-182.

Schneider, E.D. (1988). Thermodynamics, information, and evolution: new perspectives on physical and biological evolution. In Weber, B.H.; Depew, D.J. and J.D. Smith, J. D., (ed.) *Entropy, Information, and Evolution: New Perspectives on Physical and Biological Evolution*. Boston: MIT Press, 108-138.