

# Curriculum Vitae

Carl Nimitz McDaniel, Ph.D.

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## Academic Positions

Instructor, Chemistry Committee, January 1969 - October 1969, U.S. Naval Academy, Annapolis, MD.

Assistant Professor, September 1975 - December 1980; Associate Professor, January 1981 - June 1987; and Professor, July 1987 - Present, Department of Biology, Rensselaer Polytechnic Institute, Troy, NY.

Benedict Distinguished Visiting Professor, April - June 1991, Carleton College, Northfield, MN.

Director, Undergraduate Environmental Science Program, September 1992 - December 2000, Rensselaer Polytechnic Institute, Troy, NY.

## Personal Data

Born 9 June 1942, Englewood, New Jersey.

Commissioned an Ensign in the United States Naval Reserve on 25 November 1966, active duty June 1966-1969, advanced to Lieutenant (junior grade) on 25 March 1968 and to Lieutenant on 1 December 1969. Honorable discharge on 22 January 1979.

Married with two children.

## Education

*B.A.*, 1964, Oberlin College. Senior Research: Auxin Levels in the Alaska Pea as Affected by Gibberellic Acid. Advisor: Dr. Tom K. Scott.

*M.A.*, 1966, Wesleyan University. Thesis: Termination of Diapause in *Antheraea polyphemus*. Advisor: Dr. Spencer J. Berry.

*Ph.D.*, 1973, Wesleyan University. Thesis: Methylxanthine Inhibition of Insect Neurosecretion. Advisor: Dr. Spencer J. Berry.

Postdoctoral, 1973-1975, Department of Biology, Yale University in the laboratory of Dr. Ian M. Sussex.

Sabbatical, January 1982 - June 1982, Department of Biochemistry, University of California-Davis in the laboratory of Dr. Irwin H. Segel.

Sabbatical, July 1987 - December 1987, Department of Biology, University of Pennsylvania in the laboratory of R. Scott Poethig.

Sabbatical, January-June 2000; January-June 2001, began interviews for and writing of *Wisdom for a Livable Planet: The Visionary Work of Terri Swearingen, Dave Foreman, Wes Jackson, Helena Norberg-Hodge, Werner Fornos, Herman Daly, Stephen Schneider, and David Orr* (Trinity University Press, 2005).

Sabbatical, July 2006-June 2007, research for and writing third book tentatively titled *True Hopefulness*.

## **Fellowships and Grants**

- NSF summer fellowship for study at Friday Harbor Laboratory (1970)
- NIH Postdoctoral Training Fellowship - Yale University (1974-1975)
- Sir Frederick McMaster Fellowship - CSIRO, Canberra, Australia (1989)
- Research funded continuously by NIH, NSF, or USDA from 1978 to 1996

## **Publications**

- Review articles, book chapters, and symposium papers: 23
- Books: 2
- Primary research papers (peer-reviewed): 41
- Professional articles (not peer-reviewed): 11
- Video and DVD: 1

## **Professional Lectures**

- International and national symposia lectures: 16
- Keynote, symposium or named university lectures: 9
- Other professional lectures given: 100+

## **Current Research**

McDaniel's scholarly activities concern synthesizing and writing about ideas, concepts, and understandings in environmental science so as to encourage a shift from an economically centered worldview to an ecologically centered worldview.

McDaniel is writing a third book that builds upon the assessment provided by many thoughtful people as well as his two books: The likelihood of global civilization persisting for another century is essentially zero. Such dire straits call for true hopefulness—first recognizing odds are heavily against us, believing those odds, and then doing everything possible to beat them. In *True Hopefulness* McDaniel employs three stories to illuminate exactly what it will take to achieve durable habitation for humanity.

## **Recent Professional Activities**

Co-editor with Michael Christianson, *Plant Developmental Biology Newsletter* (1986-1995)

Associate Editor, *Developmental Biology* (1988-1992)

Advisor Board, *Annual Editions-Biology*, The Duskin Publishing Group (1991-1995)

Guest Editor, *Developmental Biology*, September 1992 Review-Issue on Plant Development

Member, Graduate Research Traineeship Panel, NSF, Directorate for Education and Human Resources (1993)

Editorial Board, *American Journal of Botany* (1994-1996)

Editor, *US Society for Ecological Economics Newsletter* (2000-2002)

Board of Directors, US Society for Ecological Economics (2001)

## **Course Development**

**Undergraduate courses.** McDaniel developed and taught these courses except as indicated (year when first taught):

Endocrinology (1975)

Experimental Biology IV: Cell and Development (1975)

Introduction to Organisms and their Environment (1980, developed and taught with others)

Introduction to Biology (1st Rensselaer non-majors biology course, 1982)

*Homo Sapiens: Who Are We?* (1991)

Introduction to Biology Laboratory (1993)

First Year Environmental Seminar I & II (1993)

Classic Writings on the Environment (1995, with others)

Introduction to Environmental Studies (1995, with others)

One Mile of the Hudson River I and II (1995, with others)

Introduction to Biology for Non-majors (1998, discussion section)

Environmental Biology (2001)

Introduction to Biology (2004, with others)

**Graduate courses.** McDaniel developed and taught these courses except as indicated (year when first taught):

- Developmental Genetics and Plant Development (1983)
- Introduction to Research (1981, with others)
- Environmental Science (1996, with others)

## ***Student Theses And Postdoctoral Associates***

17 bachelors, 8 masters, and 3 doctoral thesis students

5 postdoctoral and visiting scientists

## ***Recent University Service***

Co-Chair, Interdisciplinary Environmental Education Committee (Strategic Initiatives) 1993-1995

Undergraduate Interdisciplinary Environmental Education Endowment, In 1994, I coordinated the initiation of this endowment and raised funds from family, relatives, friends, colleagues, and a few alumni. Current value ≈ \$75,000.

Member, Molecular Ecologist Search Committee, 1995-1996

Member, Environmental Oversight Review Committee Planning Committee, 1995-1996

Coordinator, Review of Environmental Science Degree Program, 1997

Member, Environmental Biochemist Search Committee, 1998-1999

Chair, Professor Jackie Collier's Three-Year Assessment Committee, 1998-1999

Member, Molecular Microbiologist Search Committee, 1999

Initiated and coordinated a campus and community wide one day program entitled *Year 6 Billion—The Challenge* on 30 October 1999. This was a six hour program that filled the Darrin Communications Center (seven classrooms and the Great Hall) with programs and activities provided by 21 organizations and nine workshops conducted by 11 people. *Year 6 Billion—The Challenge* was preceded by the preparation of three hundred packets of educational materials that were sent to schools, libraries, public and private agencies, churches, other not-for-profit groups, and individuals in the local area.

Member, Life Sciences Course Committee, 2002-2004

Member, Faculty Senate Curriculum Committee, 2003-2004

## ***Recent Community And Public Service***

Member, Troy Area United Ministries Environmental Committee, 1992-1994

Member, Rensselaer County Environmental Action, 1992-present. Honored with John Gowdy as Environmentalist of the Year in 2000

Member, Hudson River Environmental Society, 1993-present

Participant, Future Search, Hudson River Sloop Clearwater, 1997

Participated in United Nations World Summit on Sustainable Development in Johannesburg, South Africa as a member of the Population Institute's delegation, August 26 to September 5, 2002

Member, Board of Directors, Rensselaer-Taconic Land Conservancy (2005-2006)

Member, Biodiversity Research Institute Executive Committee, New York State (1995-present); member, search committee for BRI Director (2006-2007)

Member, Natural Systems Agriculture Science Advisory Team, The Land Institute, Salina, KS (1997-present)  
Organized and chair of Oberlin College Alumni Association Affiliate Group, EnviroAlums (2002-present).  
Member, Oberlin College Alumni Association Executive Board (2006-present)