

CURRICULUM VITA

THOMAS EDWARD PLISKE

Current address: 10705 Griffing Blvd.,
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Current Employment: Lecturer Emeritus, Dept. of Earth and Environment (Retired, May 2008) and
Adjunct faculty and Fellow of the Honors College (2012-present)
Florida International University
University Park Campus
11200 SW 8th St.
Miami, FL 33199

Birthplace: Chapel Hill, NC Citizenship: USA

Education

Public Schools of Ann Arbor, Michigan

BA: Amherst College *cum laude*, 1963. Major: Biology, Minors: Chemistry, History
Honors thesis advisor: Dr. Lincoln Brower

PhD: Cornell University, 1968. Discipline: Evolutionary Biology.

Thesis Title: Chemical Communication in the Courtship of the Queen Butterfly
Thesis advisor: Dr. Thomas Eisner

Professional/Employment Experience

- Graduate Instructor, Dept. Of Zoology, Cornell University, Ithaca, NY, 1963-1964
- NIH Predoctoral Fellow, Cornell University, 1964-1968.
- Postdoctoral Fellow, Cornell University, 1968-1969 (with Prof. William T. Keeton)
- Assistant Professor, Dept. of Biology, University of Miami, Coral Gables, FL. 1969-1976.
- Visiting Prof. of Biological and Physical Sciences, Florida International University, Miami, FL 1976-1980.
- Visiting Research Scholar, International Affairs Center, FIU 1980-1981
- Visiting Prof. of Biological Sciences, FIU 1982
- Research Associate, Dept. of Biological Sciences, FIU 1982-1984
- Adjunct Faculty, Dept. of Biological Sciences and Environmental Studies Program (joint appointment), FIU 1982-1987.
- Lecturer, Dept. of Biological Sciences and Environmental Studies Program (joint appointment), FIU 1988-1994
- Associate Director, Environmental Studies, FIU 1988-1994.
- Lecturer, Dept. of Earth and Environment, FIU 1995-2008.

- Retired from FIU faculty in May, 2008
- Lecturer Emeritus, Dept. of Earth and Environment 2008-present
- Honors College Fellow and adjunct faculty (2013-present)

Publications

I. Scientific Articles

1. Pliske, T.E. 1957. Notes on *Atrytone dukesii*, a rare species new to southern Michigan. J. Lep. Soc. **11**: 42-43.
2. McAlpine, W.S., S.P. Hubbell and T.E. Pliske. 1960. The distribution, habits and life history of *Euptychia mitchellii* (Satyridae) J. Lep. Soc. **14**: 209-226.
3. Brower, L.P., F.P. Cranston and T.E. Pliske. 1961. Further qualitative studies of the courtship behavior in the queen butterfly, *Danaus berenice* (Cramer) Amer. Zool. **1**: 82
4. Pliske, T.E. and T. Eisner. 1969. Sex pheromone of the queen butterfly: biology. Science. **164**: 1170-1172.
5. Meinwald, J., A.M. Chalmers, T.E. Pliske and T. Eisner. 1968. Pheromones III. Identification of *trans-trans*-10-hydroxy-3, 7-dimethyl-2, 6-decadienoic acid as a major component in "hairpencil" secretion of the male monarch butterfly. Tetrahedron Letters. **47**: 4893-4896.
6. Meinwald, J., A.M. Chalmers, T.E. Pliske and T. Eisner. 1969. Identification and synthesis of *trans-trans*-3, 7-dimethyl-2, 6-decadien-1, 10-dioic acid, a component of the pheromonal secretion of the male monarch butterfly. Chem. Commun. (1969): 86-87.
7. Eisner, T, T.E. Pliske, M. Ikeda, D.F. Owen, L. Vasquez, H. Perez, J.G. Franclemont and J. Meinwald. 1970. Defense mechanisms of Arthropods. XXVII. Osmeterial secretions of papilionid caterpillars (*Baronia*, *Papilio*, *Eurytides*). Ann. Entomol. Soc. Amer. **63**: 914-915.
8. Pliske, T.E. and M. M. Salpeter. 1971. The structure and development of the hairpencil glands in males of the queen butterfly, *Danaus gilippus berenice*. J. Morphol. **134**: 215-242.

9. Pliske, T.E. 1971. Notes on unusual species of Lepidoptera from southern Florida. *J. Lepid. Soc.* **25**: 294.
10. Pliske, T.E. 1972. Sexual selection and dimorphism in female tiger swallowtail butterflies, *Papilio glaucus* L. (Lepidoptera, Papilionidae): a reappraisal. *Ann. Entomol. Soc. Amer.* **65**: 1267-1270.
Pliske, T.E. (page 3)
11. Pliske, T.E. 1973. Factors determining mating frequencies in some New World butterflies and skippers. *Ann. Entomol. Soc. Amer.* **66**: 164-169.
12. Edgar, J.A., C.C.J. Culvenor and T. E. Pliske. 1974. Co-evolution of danaid butterflies and their host plants. *Nature.* **250**: 646-648.
13. Pliske, T.E. 1975. Courtship behavior of the monarch butterfly, *Danaus plexippus* L. *Ann. Entomol. Soc. Amer.* **68**: 143-151.
14. Pliske, T.E. 1975. Attraction of Lepidoptera to plants containing pyrrolizidine alkaloids. *Environ. Entomol.* **4**: 455-473
15. Pliske, T.E. 1975. Pollination of pyrrolizidine alkaloid-containing plants by male Lepidoptera. *Environ. Entomol.* **4**: 474-479.
16. Pliske, T.E. 1975. Courtship behavior and use of chemical communication by males of certain species of ithomiine butterflies (Lepidoptera, Nymphalidae). *Ann. Entomol. Soc. Amer.* **68**: 935-942.
17. Pliske, T.E., J.A. Edgar and C.C.J. Culvenor. 1976. The chemical basis of attraction of ithomiine butterflies to plants containing pyrrolizidine alkaloids. *J. Chem. Ecol.* **2**: 235-243.
18. Edgar, J.A., C.C.J. Culvenor and T.E. Pliske. 1976. Pyrrolizidine alkaloid-derived lactone on the costal fringes of male Ithomiinae. *J. Chem. Ecol.* **2**: 244-248.
19. Pliske, T.E. 1983. The establishment of neem plantations in the American tropics. *Proc. 2nd. Int. Neem Conf.* 521-526.

II. Books

1. D. Wirth and T.E. Pliske. 2008. *Instructors Guide and Test Bank for Environment – The Science Behind the Stories, 3rd. Ed. By J. Withgott and S. Brennan.* Pearson/Benjamin Cummings Publ. 691 pp.

p.3

2. Pliske, T.E. 2011. *Test Bank for Environment – The Science Behind the Stories, 4th Ed.* By J. Withgott and S. Brennan. To be issued as an electronic supplement to the text.

III. Publisher-Invited book and chapter reviews

As an environmental educator, I take very seriously the quality of environmental and ecological texts and have been invited to review many major textbooks. The most recent reviews are listed below.

1. 2010. Chapter reviews of the biodiversity and conservation sections of revised edition of **Ecology** by John Ricklefs. Invitation from Macmillan Publ.
2. 2010. Chapter review of population biology of *Environmental Science – The Science Behind the Stories, 4th Ed.* Invitation from Pearson Publ.
3. 2009. Chapter reviews of Forest ecosystems and Fossil Fuel Energy of *Environmental Science – The Science Behind the Stories, 4th. Ed.* by J. Withgott and S. Brennan. Invitation from Pearson Publ.
4. 2009. Consultation for organization and content *proposed environmental science textbook.* Invitation from John Wiley and Sons Publ.
5. 2009. Chapter reviews of sections on succession and interspecific competition of **Ecology, 5th Ed.** by John Molles. Invitation from McGraw-Hill Publ.
6. 2008. Overall organizational, content and chapter reviews on Evolution and interspecific competition of *Ecology – Global Insights and Investigations, 1st. Ed.* by John Stiling. Invitation from McGraw-Hill Publ.
7. 2007. Overall organizational, content and chapter reviews of *Environmental Science – The Science Behind the Stories, 3rd. Ed.* by J. Withgott and S. Brennan. Invitation from Pearson Publ.
8. 2007. Overall organizational, content and chapter reviews for *Environmental Science, 7th. Ed.* by Botkin and Keller. Invitation from John Wiley and Sons Publ.
9. 2004-2006. Two assessments of overall organization, content and chapter reviews of a *proposed text on Environmental Science* by John Laposata. Invitations from Pearson Publ.

10. 2006. Chapter reviews of *Ecology, 4th Ed.* by John Molles. Invitation from McGraw-Hill.
p. 4

IV. Recent Invited presentations

2010. Lecture, "The environmental disconnect between indigenous peoples and European colonizers" for Earth Ethics course, FIU Dept. of Religious Studies, Miami, FL.

2009. Lecture, "The environmental ethical implications of evolutionary and ecological theories" for Earth Ethics course, FIU Dept. of Religious Studies, Miami, FL.

2009. *Comcast TV network's program, Community Newsmakers*: Invited panelist to discuss the environmental impacts of urban mosquito spraying in south Florida. Filmed in February, broadcast in July, 2009, Miami, FL.

2006. Invited speaker at the Summer Agroecology Workshop, Florida International University, Miami, FL. Title: "Ecosystem functions and ecosystem services – dollars and sense in sustainable agriculture."

2005. "Agroecosystems, a research report" given to the Agroecology Program, Department of Environmental Studies, Florida International University, Miami, FL.

V. Poetry

I am fortunate enough to belong to an international group of spiritually-oriented poets which has banded together to publish its members' writings in a semi-annual journal entitled *Panorama* (formerly *Now*) through Agni Press in New York.

1. *Frog Hunt*. *Panorama*: April 2001. p. 55.

2. *Full Moon Coming*. *Panorama*: Aug. 2001. pp. 132-133.

3. *Descent of the Muse*. Panorama: April 2002. p. 60.
- p.5
4. *The Passing of Brother Blue Sky*: Panorama: Aug. 2002. pp. 132-133
5. *Homage to Olivier Messiaen*. Panorama: April 2003. p. 23.
6. *Are You Mr. Blake's Tyger?* Panorama: Aug. 2003. p. 164.
7. *Homage to Ralph Vaughan Williams*. Panorama: April 2004. pp. 36-37.
8. *An Eye Above the Clouds*. Panorama. August 2004. p. 146.
9. *Silence*. Panorama. April 2006. p. 29
10. *Sacred and Secret*. Panorama: April 2007. pp. 56-57.
11. *Hawai'i*. Panorama: April 2012
12. *On the Bridge*. Panorama: April 2013.

Grants and Awards

- NSF Grant GB-33397 for the study of ecological and biochemical relationships of plants and insects, University of Miami, Coral Gables, FL. 1972-1976 (\$80,000)
- NSF Biomedical Grant for studies similar to above, University of Miami, 1970-1971 (\$1500)
- Florida Endowment for the Humanities award for development and implementation of a major conference at FIU entitled **A Global Environmental Ethic**, held April 5-6, 1979 (with Dr. James Huchingson, Dept. of Philosophy and Religion) (\$11,000)
- FIU Foundation grant to implement a lecture series entitled **Energy Paths in the 1980s**, T. Pliske, coordinator. 1980 (\$4000)
- FIU Foundation grant for the study of molecular fluorescence in insect olfactory communication (with W.V. Subbarao, Engineering Technology Dept.) 1981-1982 (\$5000)
- Florida Dept. of Education grant to develop environmental education resources in south Florida (with Dr. Jack Parker, Environmental Studies Dept. and Dr. George O'Brien, School of Education). 1991 (\$3000)
- Florida Dept. of Education grant for inservice and preservice teacher training and curriculum development in environmental science and awareness (with G. O'Brien, FIU school of Education). 1992-1994. (\$100,000)
- Award: Teacher of the Year (1994), Environmental Studies Dept (\$0)

Masters and Doctoral Theses Supervised

1. Earl McCoy, M.S. in Biology, University of Miami, 1972 (Forest entomology)
2. David Black, PhD in Biology, University of Miami, 1976 (pyrrolizidine alkaloids in insect reproductive physiology)
3. Gary Goss, PhD in Biology, University of Miami, 1976 (pyrrolizidine alkaloids in insect reproductive physiology)
4. Gregory Ballinger, M.S., Goddard College. (I was the field faculty chair) 1979. (applied biology and environmental science)
5. David Goodin, M.S. in Environmental Studies, FIU 2005. (co-chair with J. Huchinson, Dept. of Religious Studies; thesis topic: A novel exegesis of Genesis relating to contemporary environmental ethics)

At FIU I have served on many MS, PhD and EdD committees of various departments between 1985-2006 representing the fields of Entomology, Ecology, Environmental Education and Deep Ecology.

Professional and Service Organizations and Programs

I. Active membership

- Environmental Education Providers (South Florida)
- Greening the University (Florida) FIU representative
- Spirituality Center at FIU (now with state approved certificate program)
- World Harmony Run (environmental advisor and Florida co-coordinator)

II. Past service and participation

- AAAS
- Entomological Society of America
- Florida Entomological Society
- Dade Environmental Education Council
- MDCC Environmental Center Advisory Board
- “Something In Common” (environmental and social issues education) Board of Directors

Courses Developed and/or Taught at FIU

I. Dept. of Biological Sciences

- **Introductory Biology I (BSC-1010):** Molecular Biology and Genetics (team taught with various Biology faculty)
- **Introductory Biology II (BSC-1011)** Biodiversity, Ecology, Evolution (team-taught at UP and also many solo performances at BBC)
- **Human Biology + Laboratory (BSC-2023, 2023L).** This is one of the service courses for non-science majors with a very large enrollment. My innovations for this course were to add components on environmental and evolutionary biology, alternative medicine and to require students to do a “Wellness Project”, a self-study that focused on improving their own health.
- **General Entomology + Laboratory (ENY-3004/3004L, ENY-4060/4060L):** This course was the first taught at FIU on insects and drew students from Biology, Environmental Studies and the agricultural experiment stations.
- **Animal Ecology (BSC-489), Terrestrial Ecology (PCB-4324) and General Ecology (PCB-3120).** The former two of these electives I developed and were precursors to the establishment of PCB-3043+ L as the definitive and required ecology course for Biology majors.

II. Dept. of Earth and Environment

- **Energy in Human and Natural Systems (EVR-3010):** This course I have team-taught with Dr. Jack Parker and also taught solo two or three times. This course is a requirement for ES BA students and may partly fulfill the requirements for physics for some BS students. My contribution to the content of this course has been to add a component on biological and ecological energetics that harmonizes with the course’s primary physical science emphasis.
- **Pollution (EVR-3011):** I have team taught this course, primarily with Dr. Jack Parker and Dr. Art Herriott. This course is also a requirement for ES BA students.
- **Ecology of South Florida + Laboratory (EVR-3013 + L):** This course I developed for the biological aspect of environmental sciences and was for many years required for the BA students. Currently, the course is directed primarily toward non-majors and commands one of the department’s highest enrollments. The course consists of a substantial introductory unit presenting principles of

ecology, evolution and wildlife management and concludes with an in-depth survey of south Florida ecosystems, including marine coastal environments.

All students are required to do a term project on the outdoor areas surrounding
p. 8

their dwelling, **The Wildlife Audit**. The Audit is modeled on large-scale biodiversity studies and includes a site description, the original community prior to any drainage or development, a description and analysis of soils and habitat diversity, a biodiversity survey, a listing of management procedures including pesticide and herbicide use and a discussion of how to make the area more sustainable and wildlife friendly.

The laboratory consists primarily of site visits to all the major ecosystems in our area, including several state and national parks.

These courses have been approved as meeting the natural science requirement for the University's core curriculum

- **Introduction to Environmental Science (EVR-1001):** This course was developed by Dr. Jack Parker and myself as our first significant offering to non-science majors. It is approved as meeting the physical sciences requirement of the University's new curriculum and has a high enrollment. My approach to teaching this course has been to introduce things with a discussion of sustainability and why it is important to everyone to understand the principles that lie behind the concept. My introduction also includes a basic discussion of the processes of science and how good science can provide a major service to society.

These ideas are the basis of a survey of global systems and environmental problems and concludes with an current analysis of the threat of global climate change, which brings us full-circle to the premises of sustainability and the value of unbiased scientific study.

Throughout the course we look at global systems and problems but take as many examples as possible from local south Florida sources. In keeping with "thinking globally but acting locally" students audit personal uses of water, materials and energy to earn extra credit.

This course fulfills the requirement for Physical Sciences in the University's Core Curriculum.

- **Environmental Education (EVR-4934)** I designed this course as a senior elective for environmental studies BA students and also for students in the School of Education and for in-service teachers in the community. We use a seminar format and focus primarily on the south Florida region. We discuss the scientific, social and spiritual dimensions of our connection to the natural environment. We visit several established environmental education programs in the Dade-Broward-Palm Beach area, and each student designs a curriculum unit for a target age group and teaches the activity to the class during 2-3 sessions of student presentations. Because of the field trips and projects, the class is limited to 25 students.

- **Deep Ecology (IDS-4920, co-listed as EVR-4935)** This course has presented some of the greatest challenges and also given some of the greatest inspiration of all the courses I have taught at FIU. Its origins came from discussions between Profs. Jim Hutchinson (Religious Studies), Mike Branch (formerly of the English Dept.) and myself, and was team-taught for the first five years by the three of us.

Deep Ecology explores various cultural and spiritual perspectives of our relationship to Nature. Taught in one long session a week, there is a substantial reading list, and students are evaluated on the basis of 3-4 long papers, attendance and participation in class discussion. Each time the course is offered, I invite faculty from other departments and from other institutions to make class presentations. The Liberal Studies Program has kindly made a budget available for guest speakers.

The course is an elective for Environmental Studies students, is one of the flagship seminars for Liberal Studies and will be part of the curriculum of the new certificate program in the Center for Spirituality.

University and Community Service

I. University Service

- **University Ecosystem Preserve Committee**, currently serving as an unofficial advisor
- **Undergraduate Committee**: Environmental Studies Dept.
- **FIU Spirituality Center**: active member
- **FIU Disabilities Student Center**: two awards for outstanding service in classrooms to accommodate disabled students

II. Community Service

- **“I Meditate” workshops**: community service learning project that my wife and I originated over 25 years ago. We have taught many hundreds of people basic meditation techniques. Since the mid-1980’s we have worked closely with the FIU Wellness Center as well as civic centers in many communities in south Florida
- **School programs**: Since the mid-1970’s I have visited dozens of schools for Earth Day programs, butterfly garden projects and other environmental programs
- **Teacher Education Center**: Miami-Dade Public Schools TEC programs for inservice teachers in environmental science, 1980-1990.

- **World Harmony Run:** My wife and I are coordinators of this international program in south Florida. We have visited over two dozen schools in the south Florida area and involved thousands of children in this event, which gives an opportunity for people to express their aspirations for a more harmonious world through song, art, poetry, athletics and community service.
- **Ecology Board, Village of Biscayne Park:** Appointed for the year 2010-2013 at the request of the Village commissioners. Duties are to advise the Village Commissioners on matters concerning ecology of the Village and on matters of community environmental education

Teaching Philosophy in brief

It is my firm belief that the best teaching is done human-to-human and face-to-face. If we want to communicate something of value to our students it has to arise from our own sincerity, inner strength, experience and wisdom. In a field such as environmental studies, we present not just a body of factual information but also are representatives and advocates of an attitude, of an ethical position and of certain goals that are to the mutual benefit and progress of our planet and all its inhabitants, both human and non-human.

I also believe and have experienced that everyone shares some common aspirations, sometimes unconscious but still present, about their surrounding environment, whether it be natural or urban. Part of these aspirations are purely physical – that the earth should supply food, water, shelter, energy and clean air. But some are intangibles: the need for peace of mind, beauty, inspiration, expansion of thought, self-knowledge and oneness with others and with the universe. If the physical needs are degraded or cannot be met, it is hard to experience the fullness of the intangible needs.

In teaching courses, I try to place the factual studies in the context of the deeper needs that we have as human beings and that, even if only for our own personal well being, we owe Mother Earth respect, care and love. Where experience of nature is lacking, for example, I try to provide opportunities for experience. Where there is a lack of awareness of the individual's impact and connection on and to the collective, I try to design materials, discussions and projects that will strengthen the connection.

To these ends I employ whatever pedagogical tools and strategies will best promote these goals, keeping in mind that intellectual and spiritual expansion flows from human to human. We need to empower our students to see farther, deeper and more inclusively and to act more ethically than my generation has done so that they can heal the earth of its human-wrought woes and so also heal themselves and lead more satisfying and illumined lives.

revised 30 January 2015