

Curriculum Vitae

William Ernest Hamilton

634 Rose Street, Apollo, PA 15613

(724) 478-3478 or (724) 334-6717, email: hw7@psu.edu

Education

- 1983 Ph.D. State University of New York College of Environmental
 Science and Forestry, Syracuse, New York (SUNY-ESF)
 (Soil Ecology)
- 1979 M.S. The Ohio State University, Columbus, Ohio
 (Forest Ecology)
- 1974-1976 The University of Texas Health Science Center at San
 Antonio Medical School, San Antonio, Texas
- 1974 B.S. Texas Tech University, Lubbock, Texas
 (Biology Honor's Studies)

Teaching Experience

- 1983-present Assistant Professor of Biology
 (Freshman Biology, Ecology, Cell Biology, Anatomy, Physiology,
 Human Biology, Environmental Science, Honors Seminar)
- Penn State University, New Kensington, PA (Tenured May, 1989)
- Summer 1985 Adjunct Faculty SUNY-ESF
 (Microcommunity Ecology)
 Cranberry Lake Biological Station, NY
- 1981-1983 Instructor of Biology
 (Anatomy and Physiology)
 Onondaga Community College, Syracuse, New York

Awards

- 1996 "Excellence in Teaching", Penn State New Kensington
- 2000 "Blue and White Award", Penn State Alumni Society
- 2002 "Excellence in Academic Integration" Commonwealth College, Penn State
- 2003 George W. Atherton Award for Excellence in Teaching
- 2004 Bronze Medal, Economist-Shell Oil Essay Contest

Selected Activities

- 2007-present Analysis of natural areas in Western Pennsylvania: Species present, historical ecology, hiking narratives. Web site “Between Stones and Trees: An Ecologist Hikes Western Pennsylvania” (<http://www.psu.edu/dept/nkbiology/hike/index.html>).
- 2007 Penn State New Kensington Arboretum: Labeled 25 tree species on Campus Nature Trail and wrote and illustrated an arboretum guide
- 2006 Analysis of accessory pigments in tree leaves: ecological and evolutionary Implications (Undergraduate student assisted research)
- 2004-present International Travel Co-Coordinator (Penn State New Kensington) (Organized supportive classes for and trips to Spain (2004 and 2011), France (2005), Italy (2006), Peru (2007), and Ecuador (2009). Assisted in trip organization to China (2006) and Greece (2007).
- 2004-present Undergraduate Research and Creative Exposition (Penn State New Kensington): Committee member, organizer, and project mentor.
- 2004 Bon-Air Elementary School (Lower Burrell, PA) Neighborhood tree count
- 2003 Bon-Air Elementary School (Lower Burrell, PA) Backyard bird count
- 2002—2006 First Year Seminar Projects (web page and brochure publications) (“Genetic Engineering,” “Alternative Medicine,” “Energy,” “Endangered Species,” “Exotic and Invasive Species,” “Impacts of Global Warming on Pennsylvania” and “Science in China”)
- 2002 and 2006 Campus bird count project (with Biol 220M (honors) students)
- 2002-present “The Environmental Learning Center”, Penn State New Kensington (sponsored by a grant from the Alcoa Foundation)
- 2001 Presented paper (with D. Sillman): “The Virtual Nature Trail” (“Teaching and Learning with Technology Symposium, University Park, PA)
- 1999-present Scientific Journal Club (in association with Biol 230W)
- 1999-present Virtual Nature Trail (www.nk.psu.edu/naturetrail) (with D. Sillman, extensive web site describing and discussing the campus nature trail ecosystem and many of its plant and animal species) (sponsored by a grant from the Alcoa Foundation)
- 1999-present Student research on campus nature trail
- 1999-present Informal Faculty Lecture Series (Initial Coordinator and on-going Lecturer)
- 1999-2000 Ecological Time Study (descriptive models of seasonal transitions in ecosystems) (“citizen” science participatory study)
- 1999-2000 Western Pennsylvania insect collection (with D. Sillman and M. Hosack)
- 1999 Presented paper (with D. Sillman): “Use of Student Web Presentations in Science Courses” (“Teaching and Learning with Technology Symposium”)
- 1998-present Coordinator and Advisor – Campus Honors Program
- 1998 Alcoa Specialty Metals Division Consultant
Tree Identification - New Kensington Industrial Site
- 1997-2000 Coordinator and Instructor, “Kids in College” Summer Program
Penn State New Kensington

1997-1998	Empower III Grant "Use of Group Web Projects in Environmental Science"
1989-1992	Impact of utility pole preservatives upon fauna of Adirondack wetlands
1987-present	Evaluations of earthworm associations in field and laboratory experiments.
1985-1987	Patterns of invertebrate colonization of reclaimed strip mine spoils.
1985	Construction of a Nature Trail on the New Kensington campus.
1984-1986	Influence of disturbance upon soil fauna.
1983-1986	Habitat influence upon the distribution of soil microarthropod populations.

Recent Grants

2006	Alcoa Foundation (Nature Trail Extension Grant) (\$3000)
2005, 2006, 2007	Student Group Travel Grants (\$8000) (Office of International Programs, Penn State University)
2005	Balance Bar Community Grant (\$4500) (Balance bar Corporation, Kraft Food)
2000	Alcoa Foundation (Nature Trail Renovation Grant) (\$5000)

Internet Publications

"The Virtual Nature Trail" (www.nk.psu.edu/dept/nkbiology/naturetrail/):

(2000—present)

Ecological Topic Essays: "Ecological Succession," "Hibernation,"
"Leaf Shapes and Strategies," "Subnivia," "Winter Birds."

Tree Species Pages: American Beech, Black Walnut, Red Maple,
Red Pine, Sassafras, Silver Maple, Sugar Maple, White Ash,
White Oak, Yellow Poplar.

Animal Species Pages: American Crow, American Robin, American
Toad, American Wood Turtle, Black Capped Chickadee, Black Rat
Snake, Blue Jay, Bumblebee, Chipmunk, Copperhead, Coyote,
Crayfish, Deer Fly, Deer Mouse, Deer Tick, Earthworm, Eastern
Bluebird, Eastern Box Turtle, Eastern Cottontail Rabbit, Eastern
Screech Owl, Eastern Wild Turkey, Field Cricket, Garter Snake,
Gray Squirrel, Great Horned Owl, Gypsy Moth, Killdeer, Meadow
Vole, Mourning Cloak, Northern Cardinal, Northern Oriole,
Pennsylvania Firefly, Periodical Cicadas, Pileated Woodpecker,
Raccoon, Red-bellied Woodpecker, Red Fox, Red Tail Hawk, Red
Squirrel, Ribbon Snake, Rough Green Snake, Ruby-throated
Hummingbird, Saw-whet Owl, Scarlet Tanager, Sharp Shinned
Hawk, Short Tailed Shrew, Spicebush Swallowtail, Spotted
Salamander, Spring Peeper, Striped Skunk, Timber Rattlesnake,
Tufted Titmouse, Virginia Opossum, White Footed Mouse, White

Tailed Deer, Woodchuck, Wood Frog, Wood Thrush, Woodland Jumping Mouse.

Plant/Fungus Species Pages: Black Raspberry, Christmas Fern, Dead Man's Fingers, Dutchman's Breeches, False Solomon's Seal, Fire Pink, Garlic Mustard, Indian Pipe, Jack-in-the-Pulpit, Jewelweed, Multiflora Rose, Poison Ivy, Polypody Fern, Red Trillium, Sensitive Fern, Skunk Cabbage, Spicebush, Violet Wood Sorrell, Virginia Creeper, Witch Hazel, Wrinkled Thimble Cap.

"Between Stones and Trees" (<http://www.psu.edu/dept/nkbiology/hike/index.html>)
(2007-2008)

Essays: "Where is (and was?) Pennsylvania?" "Do we need nature?" "Trees of Pennsylvania" and "Old Growth Forests."

Hiking Narratives: Quebec Run, Grove Run, Charles Lewis, Wolf Rocks, Roaring Run, and Rock Furnace

"Ecologist's Notebook"

(<http://www.personal.psu.edu/hw7/blogs/nature/>)
(2009- present)

Eighty-four seasonal ecology essays and hiking narratives written from 2002 to 2012 in a blog format

Research Publications

- Dindal, D.L., Hamilton, W.E., Tardiff, M.F. 1983. Influence of Municipal Effluent Spray Irrigation on the Soil Invertebrate Microcommunity. In C. Epstein, ed., Proc. of the 5th Annual Pine Barrens Research Conf. Stockton Sprayfield Experiment, Stockton State College, Pomona, N.J.
- Hamilton, W.E. and Dindal, D.L. 1983. Interactions of Earthworms in Sludge-Amended Soil Systems. Biocycle-J Waste Recycling. 24(5): 54-55.
- Hamilton, W.E. and Dindal, D.L. 1989. Influence of Earthworms and Leaf Litter on Edaphic Variables in Sewage Sludge Treated Soil Microcosms. Biology and Fertility of Soils, 7:129-133.
- Hamilton, W.E. and Dindal, D.L. 1989. Impact of Landspread Sewage Sludge and Earthworm Introduction on Established Earthworms and Soil Structure. Biology and Fertility of Soils, 8: 160-165.
- Hamilton, W.E., Dindal, D.L., Mitchel, M.J., and Parkinson, M. 1988 Interaction of Earthworm Species in Sludge-Amended Soil Microcosms: *Lumbricus terrestris* and *Eisenia fetida*. Journal of Applied Ecology, 25: 847-852.
- Hamilton, W.E. and Sillman, D.Y. 1989. Influence of Earthworm Middens on the Distribution of Soil Microarthropods. Biology and Fertility of Soils, 8: 279-284

- Hamilton, W.E. and Vimmerstedt, J.P. 1980. Earthworms on Forested Spoil Banks. In D.L. Dindal, ed. Proceedings of the VII International Colloquium of Soil Zoology. U.S.E.P.A. Washington, D.C. pp. 409-418.
- Mitchell, M.J., Parkinson, M., Hamilton, W.E., and Dindal, D.L. 1982. Role of the Earthworm *Eisenia foetida* in Affecting Decomposition Processes in Microcosms of Sludge-Amended Soil. Journal of Applied Ecology. 19: 805-812.
- Vimmerstedt, J.P., and Hamilton, W.E. 1981. Impact of Earthworm Introduction on Organic Matter and Nutrient Cycles in Forested Coal Strip-Mine Spoils. In M. Appelhof, ed., Proceedings of Workshop on the Role of Earthworms in the Stabilization of Organic Residues. Beach Leaf Press, Kalamazoo, Michigan, pp. 117-124.