

**CURRICULUM VITÆ**  
**CHRISTY TUCKER CARTER**

**CONTACT INFORMATION**

*Current Address*

Department of Environmental and Plant Biology  
Ohio University, Porter Hall 315  
Athens, OH 45701

*Phone*

(740) 593-1120

*FAX*

(740) 593-1130

*Email*

[ct346390@ohio.edu](mailto:ct346390@ohio.edu)

*Personal Website:* <http://oak.cats.ohiou.edu/~ct346390/>

**EDUCATION**

*Ohio University—Athens, OH*

Doctor of Philosophy in Biological Sciences

Dissertation: Zonation and community structure in an inland salt marsh as influenced by seed banks and salinity

Advisor: Irwin A. Ungar

August 1998  
through  
June 2003  
(anticipated  
graduation)

*Ohio University—Athens, OH*

Master of Science in Environmental Studies

Thesis: Aboveground vegetation, seed bank, and soil analysis of a 31-year-old tree planting on coal mine spoil in Minkers Run, Athens County, Ohio

Advisor: Irwin A. Ungar

September 1996  
through  
August 1998

*Alderson-Broaddus College—Philippi, WV*

Bachelor of Science, cum laude, in Secondary Education

Teaching Specialties: Biology (grades 9-12)  
General Science (grades 5-12)

August 1991  
through  
May 1995

**RESEARCH INTERESTS AND EXPERIENCE**

*Zonation and community structure in an inland salt marsh as influenced by seed banks and salinity.* Doctoral research advised by Dr. Irwin A. Ungar. Investigation of the effects of seed banks and salinity on plant zonation within an inland salt marsh. Research includes field, greenhouse, and laboratory studies. A two-year seed burial experiment will identify annual seed dormancy and germination cycles. Seed bank studies and developmental studies of halophytes exposed to various salt concentrations at different developmental stages (seed, seedling, and mature) will provide insight into the factors influencing plant zonation. Molecular studies (ISSR) will assess the genetic diversity over time and within the seed bank.

August 1998  
through  
present

*Assessment of a forest restoration on coal mine spoil.* Master's research advised by Dr. Irwin A. Ungar. Evaluation of aboveground vegetation (trees and herbs), soil seed bank, and soil composition of a forest that was replanted on coal spoil by the USDA Forest Service in Southeastern Ohio in 1966.

September 1996  
through  
August 1998

**PUBLICATIONS**

*Papers Published*

CARTER, C. T. AND I. A. UNGAR. 2002. Aboveground vegetation, seed bank, and soil analysis of a 31-year-old tree planting on coal mine spoil in Southeastern Ohio. *The American Midland Naturalist* 147: 44-59.

CARTER, C. T. 1998. Aboveground vegetation, seed bank, and soil analysis of a 31-year-old tree planting on coal mine spoil in Minkers Run, Athens County, Ohio. M. Sc. Thesis. Ohio University.

*Papers in Review*

CARTER, C. T., L. S. BROWN AND I. A. UNGAR. Effect of long term cold storage on the dormancy cycles of dimorphic seeds of *Atriplex prostrata* (Chenopodiaceae). *Biologia Plantarum*.

*Papers in Preparation*

CARTER, C. T. AND I. A. UNGAR. Germination response of *Spergularia marina* to changes in seasonal temperature and light (in preparation for the *American Journal of Botany*).

**PRESENTATIONS** (\* with published abstract)

CARTER, C. T. , L. S. BROWN AND I. A. UNGAR. 2002. *Atriplex prostrata* (Chenopodiaceae) seed dormancy as influenced by long-term seed storage. Ohio Journal of Science 102: A 24. Ohio Academy of Science, Columbus, Ohio.\*

CARTER, C. T. AND I. A. UNGAR. 2001. Seed bank response after experimental manipulations of *Phragmites australis* in an inland salt marsh. Ecological Society of America, Abstracts. p. 67. Madison, Wisconsin.\*

CARTER, C. T. AND I. A. UNGAR. 2001. A comparison of the aboveground vegetation and seed bank in a stand of *Phragmites australis*. Ohio Journal of Science 101: A 44. Ohio Academy of Science, Alliance, Ohio.\*

CARTER, C. T. AND I. A. UNGAR. 2000. Inland salt marsh seed bank survey in a monotypic stand of *Phragmites australis*. Ohio Biological Survey, Columbus, Ohio.

CARTER, C. T. AND I. A. UNGAR. 2000. Germination response of *Spergularia marina* to seasonal changes in temperature and light. American Journal of Botany, Abstracts, 87 (6): 52. Botanical Society of America, Portland, Oregon.\*

CARTER, C. T. AND I. A. UNGAR. 2000. Germination and dormancy of three inland halophyte species. Ohio Journal of Science 100: A 40. Ohio Academy of Science, Ada, Ohio.\*

CARTER, C. T. AND I. A. UNGAR. 2000. Germination and dormancy of *Spergularia marina* (Caryophyllaceae). Midwest Ecology and Evolution Conference, Abstracts. p. 17. Athens, Ohio.\*

CARTER, C. T. AND I. A. UNGAR. 1999. Aboveground vegetation, seed bank and soil analysis of a 31-year-old tree planting on coal mine spoil in southeastern Ohio. XVI International Botanical Congress, Abstracts. p. 535. St. Louis, Missouri.\*

CARTER, C. T. AND I. A. UNGAR. 1999. Aboveground vegetation, seed bank, and soil analysis of a 31-year-old tree planting on coal mine spoil in Minkers Run, Athens County, Ohio. Ohio Journal of Science 99: A 23. Ohio Academy of Science, Cleveland, Ohio.\*

CARTER, C. T. AND I. A. UNGAR. 1998. Aboveground vegetation, seed bank, and soil analysis of a 31-year-old tree planting on coal mine spoil in Minkers Run, Athens County, Ohio. Department of Biological Sciences, Ohio University, Athens, Ohio.

**GRANTS AND AWARDS***Competitive Research Grants and Awards*

Philanthropic Educational Organization (P.E.O.) Scholars Award.	\$8000.00 Awarded April 2002
Student Enhancement Award (S.E.A.), Ohio University. Genetic diversity of salt marsh plants.	\$5242.10 Awarded April 2002
John Houk Memorial Research Grant, Ohio University. Genetic variation in glasswort.	\$1188.88 Awarded November 2000
Sigma Xi, Grants-in-Aid of Research. Genetic diversity within an inland salt marsh community over time.	\$1000.00 Awarded June 2000
Charles E. Miller Scholarship and Research Fund Award, Ohio University	\$400.00 Awarded June 2000
Ohio Biological Survey. Inland salt marsh seed bank survey in a monotypic stand of <i>Phragmites australis</i> .	\$500.00 Awarded April 2000
United States Department of Agriculture, Forest Service. Aboveground vegetation, seed bank, and soil analysis of a 31-year-old tree planting on coal mine spoil in Minkers Run, Athens County, Ohio—soil analyses.	\$1000.00 Awarded August 1997
Ohio Department of Natural Resources, Division of Mines and Reclamation. Aboveground vegetation, seed bank, and soil analysis of a 31-year-old tree planting on coal mine spoil in Minkers Run, Athens County, Ohio—soil analyses.	\$950.00 Awarded August 1997

*Travel*

Biological Sciences, Ohio University. To present research findings at the annual meeting of the Ohio Academy of Science in Columbus, Ohio.	\$171.06 Awarded October 2001
Biological Sciences, Ohio University. To present research findings at the annual meeting of the Ecological Society of America in Madison, Wisconsin.	\$200.00 Awarded April 2001
Biological Sciences, Ohio University. To present research findings at the Ohio Academy of Science in Alliance, Ohio.	\$75.00 Awarded October 2000
Biological Sciences, Ohio University. To present research findings at the Botanical Society of America Conference in Portland, Oregon.	\$350.00 Awarded April 2000
Biological Sciences, Ohio University. To present research findings at the Ohio Academy of Science in Ada, Ohio.	\$150.00 Awarded October 1999
Biological Sciences, Ohio University. To present research findings at the International Botanical Congress in St. Louis, Missouri.	\$200.00 Awarded April 1999
Biological Sciences, Ohio University. To present research findings at the Ohio Academy of Science in Cleveland, Ohio.	\$235.00 Awarded October 1998

**EMPLOYMENT HISTORY**

*Teaching Associate*—Department of Environmental & Plant Biology, Ohio University,  
Athens, OH

Plant Ecology	Prepared for field laboratories that emphasized field methods for sampling vegetation and microhabitat analysis. Included a field trip to Dysart Woods, and old-growth forest in Ohio.	Fall 1997 through present
Wildflowers	Surveyed wildflowers found in southeastern Ohio. Focused on basic field identification techniques and use of field keys to identify plants for non-science majors. Majority of class time was spent out of doors.	
Introduction to Plant Biology I	Developed and presented lectures for 18 laboratory sessions for plant biology undergraduate majors and non-majors; prepared and graded 3 quizzes; tutored undergraduate student. Topics included basic plant morphology and anatomy; mitosis; meiosis; enzymatic function and activity; gametogenesis and sporogenesis; genetics; photosynthesis; growth regulators and plant growth; and osmosis and diffusion.	
Introduction to Plant Biology II	Developed and presented lectures for 18 laboratory sessions for plant biology majors; prepared and graded 9 quizzes and laboratory practicals; tutored undergraduate students. Topics included microscopy; life cycles of eubacteria, fungi, algae (water molds, slime molds, red, green, brown), bryophytes, ferns and fern allies, gymnosperms, and angiosperms; fruit and early plant development; cells and tissues of angiosperms; and root, shoot, stem, and leaf structure.	
Principles of Biology	Developed and presented 10 lectures for laboratory sessions for non-majors; prepared and graded 8 quizzes and lab practicals; and tutored undergraduate students. Topics included basic laboratory techniques and safety; survey of the kingdoms; epidemiology and problem solving; enzymatic activity; osmosis; photosynthesis; mitosis; meiosis; genetics; and evolution.	
World of Plants	Prepared 8 laboratory sessions and lectures for non-majors. Laboratory topics included a survey of the plant kingdom; legumes; grasses; fibers; flower morphology; fruits and seeds; plant domestication; dyes and tannins; and medicinal plants..	
Plant Physiology	Prepared 9 laboratories for majors. Laboratory topics included plant nutrition, osmosis and diffusion, stomatal apparatus, growth and development, and chromatography.	
<i>Greenhouse Assistant</i> —Ohio University, Athens, OH Maintained the instructional garden.		Summer 1997
<i>Substitute Teacher</i> —Mason County Schools, Point Pleasant, WV Taught in classrooms ranging from pre-K through 12th grade Certification: West Virginia Department of Education Expires 30 June 2004		August 1995 through June 1996

**PROFESSIONAL SOCIETIES**

Sigma Xi

2000  
through  
presentBotanical Society of America  
Ecological Society of America  
Ohio Biological Survey  
Ohio Academy of Science1998  
through  
present**SERVICE***Graduate Committee*—Department of Environmental & Plant Biology, Ohio University,  
Athens, OHServe as the liaison between graduate students and faculty, working closely with the  
graduate chairperson and department chair.September 2001  
through  
present*Curriculum Committee*—Department of Environmental & Plant Biology, Ohio University,  
Athens, OHReviewed undergraduate and graduate course requirements and identified overall  
needs in the plant biology curriculum.September 2000  
through  
June 2001*Presidential Search Committee*—Alderson-Broaddus College, Philippi, WVRepresented the student body on the committee that chose Alderson-Broaddus'  
current president. The committee was comprised of 15 members of the faculty and  
Board of Trustees.August 1994  
through  
May 1995*President, Student Government Association*—Alderson-Broaddus College, Philippi, WVServed as the liaison between the students and administration of Alderson-Broaddus  
College, working closely with the Vice President of Student Affairs and the College's  
interim President; Served on the President's Staff and held ex-officio membership on  
committees within the student Senate; Nominated students to faculty-staff and Board  
of Trustee committees; Coordinated the annual Student Leadership Banquet.May 1994  
through  
May 1995**REFERENCES****Irwin A. Ungar**, *Advisor*  
*Professor**Plant ecophysiology*  
Department of Environmental &  
Plant Biology  
315 Porter Hall  
Ohio University  
Athens, Ohio 45701*Phone* (740) 593-1120*FAX* (740) 593-1130*Email* ungar@ohio.edu**Harvey E. Ballard, Jr.***Assistant Professor*  
*Plant molecular systematics*Department of Environmental &  
Plant Biology  
315 Porter Hall  
Ohio University  
Athens, Ohio 45701*Phone* (740) 593-4659*FAX* (740) 593-1130*Email* ballardh@ohio.edu**Philip D. Cantino**, *Chair*  
*Professor**Plant systematics*  
Department of Environmental &  
Plant Biology  
315 Porter Hall  
Ohio University  
Athens, Ohio 45701*Phone* (740) 593-1128*FAX* (740) 593-1130*Email* cantino@ohio.edu