# CURRICULUM VITAE FOR RANDY MOORE

**IDENTIFYING INFORMATION**

**Academic Rank**

Professor of Biology, Biology Program, University of Minnesota

**Education**

B.S., 1975, Texas A & M University, College Station, Texas

Major: Biology  
M.S., 1977, University of Georgia, Athens, Georgia  
 Major: Botany  
 Thesis: The relationship of nitrogen metabolism to photosynthesis in   
 *Digitaria sanguinalis* (L.) Scop.  
Ph.D., 1980, University of California at Los Angeles (UCLA)

Field: Plant Development  
 Dissertation: Studies of vegetative compatibility-incompatibility in higher plants

**Positions/Employment**

Assistant and Associate Professor of Biology, Baylor University, 1980-1988

Visiting Professor, Department of Botany, Pontificia Universidad Católica de Chile,  
 Santiago, Chile, 1985, 1987

Fulbright Scholar, Thailand, 1987

Professor of BIology, The University of Akron, 1993-1995

Professor of Biology, College of Arts & Sciences, University of Louisville, 1997-2000

Professor of Biology, University of Minnesota, 2000-present

**Current Membership in Professional Organizations**

National Association of Biology Teachers

Minnesota Science Teachers Association

National Center for Science Education

National Science Teachers Association

**HONORS AND AWARDS FOR RESEARCH/CREATIVE WORK, TEACHING, PUBLIC ENGAGEMENT, AND SERVICE**

A. Distinguished Student, Texas A & M University, 1972-1975  
 B. Graduated *cum laude* from Texas A & M University, 1975  
 C. Presidential Scholarship, from the Electron Microscopy Society of America, 1978  
 D. Invited Post-Graduate Student, 9th International Congress on Electron Microscopy, 1978  
 E. Chancellor's Special Commendation as a Teaching Assistant, UCLA, 1979  
 F. Sigma Xi  
 G. Outstanding Teaching Assistant, UCLA, 1980  
 H. Presidential Scholarship, from the Electron Microscopy Society of America, 1980  
 I. Model Teacher, "Mastery of Teaching" film series, 1982, distributed by Instructional   
 Dynamics, Inc., Pacific Palisades, California  
 J. Young People In Achievement  
 K. Presidential Award, Scanning Electron Microscopy, 1982  
 L. Elected Fellow, Texas Academy of Science, 1984  
 M. Recipient of the *Excellence in Educational Journalism Award* of the Education Press   
 Association of America, 1986, 1991, 1992  
 N. Selected as participant in Great Teacher Workshop, 1986  
 O. Most Outstanding Professor, Baylor University, 1986  
 P. Recipient of the *Excellence in Educational Journalism Award* of the Washington Press   
 Association, 1986  
 Q. Mortar Board "Circle of Achievement" Award as Outstanding Professor at Baylor   
 University, 1986

R. Outstanding Young Men in America, 1987

S. Honoree, Baylor University Homecoming Parade, 1987

T. Honorary Member, Texas Society for Electron Microscopy, 1987

U. Fulbright Scholar, Thailand, 1987

V. Invited Member, People to People Botanical Science Delegation to the People's

Republic of China, 1987, 1990

W. Invited Instructor, Workshops On Electron Microscopic Immunocytochemistry, People's

Republic of China, October, 1988

X. American Men and Women of Science, 1988

Y. Kendall Teacher Exemplar Award, presented by the Society for College Science Teachers

(the college/university branch of the National Science Teachers Association) to “the

most outstanding undergraduate science teacher of the year,” 1993

Z. Who's Who in Science and Engineering, 1992

AA. Omicron Delta Kappa, 1996

BB. Most Outstanding Faculty Member, Wright State University, 1992

CC. Outstanding Scientist Award, presented by the Affiliate Societies Council, 1993

DD. Men of Achievement, 1994

EE. Outstanding Administrator Award, presented by the Southeast Section of the National Association of Academic Affairs Administrators, 1998

FF. Honorary Member, National Association of Biology Teachers, 2005. This is the Association’s

highest honor.

GG. Horace T. Morse-University of Minnesota Alumni Award for Outstanding Contributions to

Undergraduate Education, 2006.

HH. Friend of Darwin Award, National Center for Science Education, 2006

II. CASE/Carnegie Minnesota Professor of the Year, 2006

JJ. Biology Research/Teaching Award, National Association of Biology Teachers, 2006

KK. Inductee, Academy of Distinguished Teachers, University of Minnesota, 2006

LL. Inductee, Distinguished Alumni Hall of Fame, Columbus School System, Columbus, TX, 2007

MM. Evolution Education Award, National Association of Biology Teachers, 2008

NN. Most Dogmatic Indoctrinator in an Evolutionary Biology Course, The Discovery Institute, 2010

## RESEARCH, SCHOLARSHIP, AND CREATIVE WORK

A. Sigma Xi Grants-In-Aid for Research, 1979, 1981; "Plant Grafting," $500  
 B. National Institutes of Health (N.I.H.), 1980; "High Voltage Electron Microscopy of   
 Cellular Interactions During Graft Formation In Plants," $1,500.  
 C. Office of Instructional Development. UCLA, 1979; "Teaching Methods and Materials In   
 Introductory Biology," $300.  
 D. American Philosophical Society, 1980; "Graft Compatibility and Incompatibility In   
 Higher Plants," $3,000.  
 E. University Research Committee, Baylor University, 1980; "Grafting In Higher Plants,"   
 $5,000.  
 F. University Research Committee, Baylor University, 1981; "Engineering A Graft-Induced   
 Periclinal Cytochimaeral Plant," $1,000.  
 G. University Research Committee, Baylor University, 1982; "Cellular Differentiation In   
 The Root Cap of *Zea mays*," $2,000.  
 H. National Science Foundation, 1981; Travel Grant to Attend 9th International Botanical   
 Congress, Sydney, Australia, $500.  
 I. Botanical Society of America, 1981; Travel Grant to Attend 9th International Botanical   
 Congress, Sydney, Australia, $500.  
 J. American Orchid Society, 1982; "Experimental Hybridization Between *Dendrobium* and

*Brassavola*," $1,200.

K. Botanical Society of America, 1982; Expenses for Symposium on "Vegetative   
 Compatibility Responses In Plants," $700.  
 L. National Science Foundation, 1982; Grant No. PCM-8207933, "Graft Compatibility-  
 Incompatibility In Higher Plants," $65,000.  
 M. University Research Committee, Baylor University, 1984; "How Roots Perceive and

Respond to Gravity," $3,000  
 N. National Aeronautics and Space Administration, 1985; "Gravitropism in Primary and   
 Lateral Roots of Higher Plants," $120,000 (through 1990)

O. National Science Foundation, 1984; Grant No. 8207933 (renewal of 82 NSF Grant); "Graft

Compatibility-Incompatibility in Plants," $90,000

P. American Society of Plant Physiologists, 1985; Travel grant to attend XII International   
 Conference on Plant Growth Substances, Heidelberg, Germany.  
 Q. National Aeronautics and Space Administration, 1986; "The Influence of Gravity on Plant

Growth and Development," $27,000

R. Kazato Research Grant for the XI International Congress on Electron Microscopy, 1987

S. Research Challenge Grant, 1988. Wright State University, $7,500.

T. NASA, 1991, "Signal Transduction During Root Gravitropism," $40,000

U. NASA, 1989, "How Roots Perceive and Respond to Gravity," $40,000

V. NASA, 1990, "Structure-Function Relations During Root Gravitropism," $40,000

W. Dayton Engineering and Science Foundation, 1990, "Workshops for High School Biology

Teachers," $9900

X. President's Club, Wright State University, 1989, "Workshops for High School Biology Teachers,"

$3000

Y. Research Challenge Program, Wright State University, 1990, "Mimicking the Effects of

Microgravity in Plants," $25000

Z. National Science Foundation, 1990, "Purchasing a Transmission Electron Microscope," $172,816

AA. Eisenhower Foundation, 1990, "Implementing a Hands-on Science Curriculum in the Trotwood

Madison School District," $32,816 (Co-PI: Arlene Foley)

BB. National Science Foundation, 1991-94, "Hands-on Science," $402,499

CC. International Business Machines (IBM) Corporation, 1991. "Establishing a Computer-Assisted

Learning Center for Science Students," $51,240.

DD. Kettering Foundation, 1991. "A Computer-Assisted Learning Center for Disabled Students,"

$6,200

EE. National Aeronautics and Space Administration, 1991-93. "The role of auxin in root gravitropism," $40,000 per year.

FF. Department of Education, Upward Bound Program, 1991, "A Program to Enhance Math and

Science Education," $174,711 (with A. Shearer).

GG. Technology Enhanced Learning (TEL), University of Minnesota, 2001. Using digital technology to help students learn science. $9,705 (excluding match from General College)

HH. Grant-in-Aid of Research, University of Minnesota Graduate School, 2001. Understanding the

evolution-creationism controversy. $2,715.

II. Faculty Summer Research Fellowship. Understanding the History of the Evolution-Creationism Controversy. University of Minnesota. Funded: $5,000 for Summer, 2002 salary.

JJ. McKnight Summer Fellow. Understanding the History of the Evolution-Creationism Controversy. University of Minnesota. Funded: $5,000 for Summer, 2002 salary.

KK. Hsu, L., Jensen, M., Moore, R., and Hatch, J. Funds to support publication of monograph entitled *Teaching Academic Skills in the First-Year Science Course*. Funded: $1500.

***Received at the University of Minnesota – Student Grants***

**Publications [Note if these are published electronically with a URL if appropriate]**

1. Moore, Randy and Clanton Black. 1979. Nitrogen assimilation pathways in leaf  
 mesophyll and bundle sheath cells of C4 photosynthesis plants formulated from   
 comparative studies with *Digitaria sanguinalis* (L.) Scop. Plant Physiol. 64: 309-313.  
 2. Black, C.C., R.H. Brown, and R.C. Moore. 1978. Plant photosynthesis. In (Eds.)   
 Dobereiner, J., R.H. Burris, A. Hollaender, A.A. Franco, C.A. Neyra, and D.B. Scott.   
 **Limitations and Potentials for Biological Nitrogen Fixation in the   
 Tropics**. Plenum Press, New York. pp. 95-110.  
 3. Moore, Randy. 1978. An ultrastructural study of vegetative incompatibility in plants.   
 Proc. Ninth Intl. Cong. Electron Micros. 2: 436-437.

4. Moore, Randy and Dan B. Walker. 1981. Studies of vegetative plant  
 tissue compatibility-incompatibility. I. A structural study of a compatible autograft in   
 *Sedum telephoides* (Crassulaceae). Amer. J. Bot. 68: 820-830.  
 5. Moore, Randy and Dan B. Walker. 1981. Studies of vegetative plant tissue   
 compatibility-incompatibility. II. A structural study of an incompatible heterograft   
 between *Sedum telephoides* (Crassulaceae) and *Solanum pennellii* (Solanaceae). Amer.   
 J. Bot. 68: 831-842.  
 6. Moore, Randy and Dan B. Walker. 1981. Graft compatibility and incompatibility in   
 plants. BioScience 31: 389-391.  
 7. Moore, Randy and Dan B. Walker. 1981. Studies of vegetative plant tissue   
 compatibility-incompatibility. III. The involvement of acid phosphatase in the lethal   
 cellular senescence in an incompatible heterograft. Protoplasma 109: 317-334.  
 8. Moore, Randy. 1981. Graft compatibility-incompatibility in higher plants. Dev. Compar.   
 Immunol. 5: 377-390.  
 9. Moore, Randy. 1981. Plant grafting. What's New in Plant Physiol. 12: 13-16.  
 10. Moore, Randy. 1980. Vegetative plant tissue compatibility and incompatibility. Proc.

Elect. Micros. Soc. Amer. 38: 530-531.  
 11. Mullins, Ted D. and Randy Moore. 1982. An ultrastructural study of muscular and   
 nervous tissue in *Drosophila*. Bios 53: 66-72.  
 12. Moore, Randy. 1982. Graft development in *Kalanchoë blossfeldiana.* J. Exp. Bot. 33:

533-540.  
 13. Moore, Randy. 1982. Further evidence for cell wall deposition during graft formation.   
 Ann. Bot. 50: 599-604.  
 14. Moore, Randy. 1982. The cytochemical localization of acid phosphatase in plant cells.   
 Texas Soc. Elect. Micros. J. 13: 9-13.  
 15. Moore, Randy. 1983. Studies of vegetative plant tissue compatibility and   
 incompatibility. IV. The development of tensile strength in a compatible and an   
 incompatible graft. Amer. J. Bot. 70: 226-231.  
 16. Moore, Randy and C. Edward McClelen. 1983. Ultrastructural aspects of cellular   
 differentiation in the root cap of *Zea mays.* Can. J. Bot. 61: 1566-1572.  
 17. Moore, Randy and C. Edward McClelen. 1983. A morphometric analysis of cellular   
 differentiation in the root cap of *Zea mays*. Amer. J. Bot. 70: 611-617.  
 18. Moore, Randy. 1982. Studies of vegetative plant tissue compatibility and   
 incompatibility. V. A morphometric analysis of the development of a compatible and   
 an incompatible graft. Can. J. Bot. 60: 2780-2787.  
 19. Moore, Randy and Dan B. Walker. 1983. Studies of vegetative plant tissue   
 compatibility-incompatibility. VI. Grafting of *Sedum* and *Solanum* callus tissue in   
 vitro. Protoplasma 115: 114-121.  
 20. Ransom, J. Steven and Randy Moore. 1983. Geoperception in primary and lateral roots of   
 *Phaseolus vulgaris* (Fabaceae). I. Structure of columella cells. Amer. J. Bot. 70: 1048-  
 1056.  
 21. Moore, Randy. 1983. A morphometric analysis of the ultrastructure of columella   
 statocytes of primary roots of *Zea mays*. Ann. Bot. 51: 771-778.  
 22. Moore, Randy. 1983. Physiological aspects of graft formation in plants. *In* Moore,   
 Randy (Ed.), **Vegetative Compatibility Responses In Plants**. Baylor University   
 Press, Waco, Texas.  
 23. Moore, Randy (Editor). 1983. **Vegetative Compatibility Responses In Plants.**   
 Baylor University Press, Waco, Texas.  
 24. Moore, Randy. 1984. Grafting in plants. *In* S.B. Parker (Ed.), **1984 Yearbook of   
 Science and Technology**. McGraw Hill, New York. pp. 202-204.  
 25. Smith, Houston and Randy Moore. 1990. A morphometric analysis of epidermal differentiation

in primary roots of *Zea mays*. Amer. J. Bot. 77: 727-735.

26. Moore, Randy. 1982. A SEM study of the early events in graft formation in plants.   
 Scanning Electron Microscopy/1982 3: 1103-1107.  
 27. Simpson, W.L. and Randy Moore. 1984. Leaf structure and light absorption in *Frithia   
 pulchra* (Mesembryanthemaceae). Ann. Bot. 53: 413-420.  
 28. McGarry, Mary T. and Randy Moore. 1983. Development of tensile strength in compatible   
 autografts in *Solanum pennellii* and *Lycopersicon esculentum*. Texas J. Sci. 35: 327-  
 331.  
 29. Moore, Randy. 1988. Preparing students to teach biology in higher education. The   
 American Biology Teacher, In Press.  
 30. Moore, Randy. 1985. *In vitro* propagation of geranium. Avery Publishing Co. Series on   
 Plant Tissue Culture. Avery Publishing Co., Garden City Park, New York.  
 31. Moore, Randy. 1985. *In vitro* propagation of broccoli. Avery Publishing Co. Series on   
 Plant Tissue Culture. Avery Publishing Co., Garden City Park, New York.

32. Moore, Randy. 1988. Studies of vegetative plant tissue compatibility and   
 incompatibility. VII. Contributions of individual organs to graft development.   
 Submitted to New Phytol.  
 33. Moore, Randy. 1985. *In vitro* propagation of sweet potato. Avery Publishing Co. Series on   
 Plant Tissue Culture. Avery Publishing Co., Garden City Park, New York.

34. Moore, Randy. 1984. Ultrastructural aspects of graft incompatibility between pear and   
 quince. Ann. Bot. 53: 447-451.

35. Ransom, J. Steven and Randy Moore. 1984. Geoperception in primary and lateral roots of   
 *Phaseolus vulgaris* (Fabaceae). II. Intracellular distribution of organelles in columella   
 cells. Can. J. Bot. 62: 1090-1094.  
 36. Moore, Randy. 1988. Ultrastructural aspects of graft incompatibility between *Brassica   
 oleraceae* and *Lycopersicon esculentum.*  Submitted to Ann. Bot.  
 37. Ransom, J. Steven and Randy Moore. 1985. Geoperception in primary and lateral roots   
 of *Phaseolus vulgaris* (Fabaceae). III. A model to explain the differential   
 graviresponsiveness of primary and lateral roots. Can. J. Bot. 63: 21-24.  
 38. Moore, Randy and John Pasieniuk. 1984. Structure of columella cells in primary and   
 lateral roots of *Ricinus communis* (Euphorbiaceae). Ann. Bot. 53: 715-726.  
 39. Moore, Randy and John Pasieniuk. 1984. Graviresponsiveness and cap dimensions in   
 primary and secondary roots of *Ricinus communis* (Euphorbiaceae). Can. J. Bot. 62:   
 1767-1769.  
 40. Moore, Randy and John Pasieniuk. 1984. Graviresponsiveness and the development of   
 columella tissue in primary and secondary roots of *Ricinus communis*. Plant Physiol.   
 74: 529-533.  
 41. Moore, Randy. 1984. How roots perceive and respond to gravity. American Biology   
 Teacher 46: 257-265.  
 42. Moore, Randy. 1985. Graft incompatibility is not reduced by treatment with plant   
 growth regulators. Texas J. Sci. 36: 285-289.  
 43. Moore, Randy and Cynthia Stickney. 1991. The structure of cells that perceive gravity   
 in plant roots. American Biology Teacher, In Press.  
 44. Moore, Randy. 1984. A model to explain graft compatibility and incompatibility in   
 higher plants. Amer. J. Bot. (Special Invited Paper) 71: 752-758.  
 45. Moore, Randy. 1984. Structure of graviperceptive cells in plant roots. Texas Soc. Electron   
 Micros. J. 15: 16-21.  
 46. Moore, Randy. 1984. The role of direct cellular contact in graft formation in *Sedum   
 telephoides*. Ann. Bot. 54:127-133.  
 47. Moore, Randy. 1984. Graft formation in *Solanum pennellii*. Plant Cell Reports 3: 172-  
 175.  
 48. Moore, Randy. 1984. Haustorium formation in *Cuscuta salina*, a holoparasitic   
 angiosperm. Scanning Electron Microscopy/1984 2: 787-789.  
 49. Stoker, Robert and Randy Moore. 1984. Structure of graviperceptive cells in primary   
 and lateral roots of *Helianthus annuus.* New Phytol. 97: 205-212.  
 50. Moore, Randy and John Pasieniuk. 1984. Graviresponsiveness and columella cell   
 structure in roots of *Ricinus communis.* Plant Cell Reports 3: 48-50.  
 51. McClelen, C.E. and Randy Moore. 1984. The cytochemical localization of glucose-6-  
 phosphatase in plant cells. Texas Soc. Electron Micros. J. 15: 11-13.  
 52. Moore, Randy and James D. Smith. 1984. Root growth, graviresponsiveness, and abscisic   
 acid content of *Zea mays* seedlings treated with fluridone. Planta 162: 342-344.  
 53. Moore, Randy and Relvert Coe. 1984. A morphometric analysis of cellular differentiation   
 in root caps of *Cucurbita pepo.* Plant Cell Reports 3: 98-101.  
 54. Moore, Randy. 1984. The development of tensile strength in conventional and approach   
 grafts in *Sedum telephoides.* Can. J. Bot. 62: 1580-1582.  
 55. Moore, Randy. 1984. Acid efflux patterns of primary and lateral roots of *Phaseolus   
 vulgaris*. Amer. J. Bot. 71: 1168-1170.  
 56. Vodopich, Darrell S. and Randy Moore. 1984. A computer program to facilitate   
 morphometric analyses of cellular ultrastructure. Texas Soc. Electron Micros. J. 15: 9-10.  
 57. Moore, Randy. 1984. Dimensions of root caps and columella tissues of primary roots of   
 *Ricinus communis* characterized by differing degrees of graviresponsiveness. Ann. Bot.   
 55: 375-380.  
 58. Moore, Randy. 1984. Acid efflux patterns of primary and secondary roots of *Ricinus   
 communis.* Ann. Bot. 55: 381-385.  
 59. Moore, Randy. 1984. Cellular volume and tissue partitioning in root caps of *Zea mays.*   
 Amer. J. Bot. 71: 1452-1454.  
 60. Moore, Randy. 1985. Cellular volume and tissue partitioning in caps of primary and   
 lateral roots of *Helianthus annuus*. Ann. Bot. 55: 367-373.  
 61. Moore, Randy. 1985. A morphometric analysis of cellular differentiation in caps of   
 primary and lateral roots of *Helianthus annuus.* Amer. J. Bot. 72: 1048-1053.  
 62. Moore, Randy. 1984. Inhibition of gravitropism in roots of *Zea mays*  treated with   
 chloramphenicol. Amer. J. Bot. 72: 733-736.  
 63. Moore, Randy and James D. Smith. 1985. Root graviresponsiveness and ABA content of   
 carotenoid-deficient mutants of *Zea mays.* Planta 164: 126-128.  
 64. Moore, Randy, C. Edward McClelen, and Houston Smith. 1987. Phosphatases. *In* Kevin   
 Vaughn (Ed.), **CRC Handbook of Plant Cytochemistry**, Vol. 1. CRC Press, Boca

Raton, Florida . pp. 37-64

65. Ng, Yuk-Kiu and Randy Moore. 1985. The effect of ABA on root growth, secondary root   
 formation, and gravitropism in *Zea mays* L. Ann. Bot. 55: 387-394.  
 66. Moore, Randy and C.E. McClelen. 1985. Changes in the distribution of plastids and   
 endoplasmic reticulum during the differentiation of columella cells in *Zea mays*. Ann.   
 Bot. 56: 73-81.  
 67. Moore, Randy and C. Edward McClelen. 1985. Graviresponsiveness and columella cell   
 structure in carotenoid-deficient seedlings of *Zea mays.* Ann. Bot. 56: 83-90.  
 68. Moore, Randy. 1985. Calcium movement across tips of primary and lateral roots of   
 *Phaseolus vulgaris*. Amer. J. Bot. 72: 785-787.  
 69. Vodopich, Darrell S. and Randy Moore. 1986. **Laboratory Exercises in Biology.**   
 Mosby Publishing Co., St. Louis, MO. 341 pp.  
 70. Moore, Randy. 1987. Root graviresponsiveness in a cultivar of *Zea mays* whose   
 columella cells contain starch-deficient amyloplasts. Annals of Botany 59: 661-666.  
 71. Moore, Randy. 1986. A morphometric analysis of the redistribution of cellular   
 organelles in graviresponding roots of *Zea mays.*  Ann. Bot. 57: 119-131.  
 72. Moore, Randy. 1986. Graft incompatibility between pear and quince: The influence of   
 metabolites of *Cydonia oblonga* on growth of suspension cultures of *Pyrus communis.*   
 Amer. J. Bot. 73: 1-4.  
 73. Moore, Randy. 1985. Calcium movement, graviresponsiveness, and the structure of   
 columella cells and columella tissues in *Allium cepa.* Ann. Bot. 56: 173-187.  
 74. Moore, Randy and C.E. McClelen. 1985. The involvement of glucose-6-phosphatase in   
 mucilage secretion by root caps of *Zea mays.* Ann. Bot. 56: 139-142.  
 75. Moore, Randy. 1985. Cellular interactions during the formation of approach grafts in   
 *Sedum telephoides*. Can. J. Bot. 62: 2476-2484.  
 76. Smith, J.D., R. Moore, and F. Fong. 1985. Gravitropism in abscisic-acid deficient   
 seedlings. Maize Genetics Coop. Newsletter 59: 31.

77. Moore, Randy, J.D. Smith, and F. Fong. 1985. Gravitropism in abscisic-acid deficient   
 seedlings of *Zea mays.* Amer. J. Bot. 72: 1311-1313.

78. Moore, Randy. 1985. A morphometric analysis of the redistribution of organelles in   
 columella cells of normal seedlings and agravitropic mutants of *Hordeum vulgare.* J.   
 Exp. Bot. 36: 1275-1286.  
 79. Moore, Randy. Cellular differentiation and tissue partitioning in caps of primary and   
 lateral roots of *Phaseolus vulgaris.* Submitted to New Phytologist.  
 80. Moore, Randy. 1986. Calcium movement, graviresponsiveness, and the structure of   
 columella cells in primary roots of amylomaize mutants of *Zea mays*. Amer. J. Bot.   
 73: 417-426.  
 81. Moore, Randy. 1985. Nodes from the underground. Natural History 95: 64-67.  
 82. Moore, Randy. 1986. Cytochemical localization of calcium in root cap cells of *Zea mays*.   
 J. Exp. Bot. 37: 73-79.  
 83. Moore, Randy and K. Dickey. 1985. Growth and graviresponsiveness of primary roots of   
 *Zea mays* seedlings deficient in abscisic acid and gibberellic acid. J. Exp. Bot. 36: 1793-  
 1798.  
 84. Moore, Randy and Michael L. Evans. 1986. How roots perceive and respond to gravity.   
 Amer. J. Bot. (Special Paper) 73: 574-587.  
 85. Moore, Randy, W. Mark Fondren, and H. Marcum. 1987. Characterization of   
 root agravitropism induced by genetic, chemical, and developmental constraints.   
 Amer. J. Bot. 74: 329-336.

86. Moore, Randy and W. Mark Fondren. 1986. Possible involvement of root-cap mucilage   
 in gravitropism and calcium movement across root tips of *Allium cepa* L. Annals of   
 Botany 58: 381-387.

87. Moore, Randy, C. Edward McClelen, Chia-Lien Wang, and W. Mark Fondren. 1986. The   
 influence of microgravity on root-cap regeneration and the structure of columella cells   
 in *Zea mays.* American Journal of Botany 74: 218-223.

88. Moore, Randy. 1987. Cytochemical localization of endogenous heavy metals in root tips   
 of *Zea mays.* Submitted to Annals of Botany.  
 89. Evans, M., Randy Moore and Karl Hasenstein. 1986. How roots respond to gravity.

Scientific American 255: 112-119.

90. Moore, Randy, M. Fondren, C.E. McClelen, and C-L. Wang. 1987. The influence of   
 microgravity on cellular differentiation in root caps of *Zea mays*. American Journal of   
 Botany 74: 1006-1012.

91. Moore, Randy, W. Mark Fondren, E. Colin Koon, and C-L. Wang. 1986. The influence of   
 microgravity on the formation of amyloplasts in columella cells of *Zea mays* L. Plant   
 Physiology 82: 867-868.

92. Moore, Randy and D.S. Vodopich. 1987. The influence of pH on the color of anthocyanins

and betalains. American Biology Teacher 49: 111-112.

93. Vodopich, Darrell S. and Randy Moore. 1986. **Instructor's Manual for Laboratory   
 Exercises in Biology.** Mosby Publishing Co., St. Louis, Missouri. 106 pp.  
 94. Fondren, W. Mark and Randy Moore. 1987. Collection of gravitropic effectors from   
 mucilage of electrotropically-stimulated roots of *Zea mays*. Annals of Botany 59:

657-659.

95. Hasenstein, K.H., M.L. Evans, C.L. Steinemetz, R. Moore, W.M. Fondren, and E.C. Coon.   
 1988. Comparative effectiveness of metal ions in inducing curvature of primary roots of

*Zea mays*. Plant Physiology 86: 885-889.

96. Moore, Randy, W. Mark Fondren, I.L. Cameron, and N.K.R. Smith. 1989. Movement of

endogenous calcium in graviresponding roots of *Zea mays*. Annals of Botany 64: 122-126.

97. Moore, Randy and W. Mark Fondren. 1988. A gradient of endogenous calcium forms in

mucilage of graviresponding roots of *Zea mays*. Annals of Botany 61: 113-116.

98. Moore, Randy, I.L. Cameron, K.E. Hunter, D. Olmos, and N.K.R. Smith. 1987. The

locations and amounts of endogenous ions and elements in the cap and elongating

zone of horizontally-oriented roots of *Zea mays* L.: An electron-probe EDS study.

Ann. Bot. 59: 667-677.

99. Vodopich, D.S. and Randy Moore. 1988. Demonstrating the effects of stress on cellular

membranes. Amer. Biol. Teacher 51: 40-42.

100. Wivagg, D.S. and Randy Moore. 1987. Current trends in biology education. Curriculum Report

17: 1-6.

101. Moore, Randy. 1988. How plants grow in outer space. Biology Digest (Invited Paper) 14: 11-16.

102. Moore, Randy. 1991. The effects of gravity on the ecology and dynamics of root growth. pp.

252-259. In J. Box and L. Hammond (Eds.), **Rhizosphere Dynamics - AAAS Selected**

**Symposium 13**, Westview Press, Westview, CO

103. Moore, Randy. 1991. The Dynamics of Root Growth and Gravitropism. In M. Iqbal (Ed.), **The**

**Dynamics of Plant Growth**. Academic Press, San Diego, CA (In Press).

104. Moore, Randy. 1989. Structure of columella cells and tissues in a wild-type and a starchless

mutant of *Arabidopsis thaliana* L. Ann. Bot. 64: 271-278.

105. Moore, Randy. 1989. Graft compatibilities *in vitro*. In Y.P.S. Bajaj (Ed.),

*Biotechnology in Agriculture and Forestry, Vol. 17*. Academic Press, San Diego, CA.

pp. 71-84.

106. Matos, Jennifer and Randy Moore. 1988. The coral reefs of Cozumel. Yacht Vacations 1: 34-37.

107. Moore, Randy and C.E. McClelen. 1989. Pathways by which gravitropic effectors move from

the root cap to the root in primary roots of *Zea mays*. Annals of Botany 64: 415-423.

108. Moore, Randy. 1989. Inching toward the metric system. The American Biology Teacher 51:

213-218.

109. Moore, Randy, Michael L. Evans, and W. Mark Fondren. 1989. Inducing graviresponsiveness by

primary roots of *Zea mays* cv. Ageotropic. Plant Physiology 92: 310-315.

110. Moore, Randy. 1989. How effectively does a clinostat mimic the ultrastructural effects of

microgravity in plant cells? Annals of Botany 65: 213-216.

111. Yang, R., M.L. Evans, and R. Moore. 1990. Microsurgical removal of epidermal and cortical cells:

evidence that gravitropic signals move through the outer cell layers in primary roots of Zea

mays. Planta 180: 530-536.

112. Miller, I. and R. Moore. 1990. Defective secretion of mucilage is the cellular basis for agravitropism in primary roots of *Zea mays* cv. Ageotropic. Annals of Botany 66: 169-178.

113. Marcum, H. and R. Moore. 1990. Influence of electrical fields and asymmetric application of

mucilage on curvature of primary roots of *Zea mays*. Amer. J. Bot. 77: 446-452.

114. Moore, Randy and D. Vodopich. 1991. **Deserts**. Enslow Publishing Company.

115. Moore, Randy and D. Vodopich. 1992. **Lakes and Streams**. Enslow Publishing Company.

In Press.

116. Moore, R. 1991. Comparative effectiveness of a clinostat and a slow-turning lateral vessel at

mimicking the ultrastructural effects of microgravity in plant cells. Annals of Botany 66:

541-549.

117. Vodopich, Darrell S. and Randy Moore. 1990. **Laboratory Exercises in Biology.**   
 Second Edition. Mosby Publishing Co., St. Louis, MO. 341 pp.

118. Vodopich, Darrell S. and Randy Moore. 1990. **Instructor's Manual for Laboratory   
 Exercises in Biology.** Second Edition. Mosby Publishing Co., St. Louis, MO.

106 pp.

119. Moore, Randy. 1990. Abscisic acid is not necessary for gravitropism in primary roots of

*Zea mays*. Annals of Botany 66: 281-283.

120. Moore, Randy. 1990. Liquid transport in plants. Magill's Survey of Science, pp. 1613-1618.

121. Moore, Randy. 1990. Roots. Magill's Survey of Science, pp. 2437-2443.

122. Moore, Randy. 1990. Tropisms and their cellular control. Magill's Survey of Science, pp.

2510-2515.

123. Moore, Randy and Joyce Corban. 1990. Vacuoles. Magill's Survey of Science, pp. 2675-2780.

124. Corban, Joyce and Randy Moore. 1990. Rainforests. Magill's Survey of Science, pp. 2187- 2191.

125. Corban, Joyce and Randy Moore. 1990. Mitosis and meiosis. Magill's Survey of Science,

pp. 1738-1744.

126. Moore, Randy. 1991. A program to improve the teaching effectiveness of graduate

teaching assistants in biology. Journal of College Science Teaching (May 1991),

pp. 358-361.

127. Moore, Randy and Joyce Corban. 1990. Improving students' writing: the content and

impact of a writing course in the life sciences. In *Proceedings of the Seventh Annual*

*Conference on Academic Chairpersons: Developing Faculty, Students, and*

*Programs*, pp. 269-275.

128. Maimon, Emily and Randy Moore. 1991. Gravitropic responses of surgically altered roots

of *Zea mays*. Annals of Botany 67: 145-151.

129. Moore, Randy and Myra Langenkamp. 1991. Leaf development and tissue partitioning in

leaves of *Frithia pulchra*, a window plant. Annals of Botany 67: 279-283.

130. R. Moore, C. Gontang, & B. Essenfeld. 1994. **Biology**. Addison-Wesley Publishing Co.,

952 pp.

131. Moore, Randy. 1990. Student evaluations of teaching. The American Biology Teacher

52: 262-264.

132. Moore, Randy. 1990. What's wrong with science education and how can we fix it? The

American Biology Teacher 52: 330-337.

133. Moore, Randy. 1990. US government slow in metrification. BioScience 40: 706.

134. Moore, Randy. 1990. Foot dragging on metrification. Science 249: 723.

135. Moore, Randy. 1990. Hardware for in-flight fixation of plants in microgravity. Biotechnic

and Histochemistry 295: 155-158.

136. Christensen-Dean, Gay and Randy Moore. 1991. Leaf development in *Peperomia columella*.

Annals of Botany, in press.

137. Moore, Randy. 1991. Critical thinking in biology classes. Strategies for Success in Anatomy &

Physiology and Life Science 5: 1-3.

138. Moore, Randy and I. Miller. 1990. Liquid transport in plants. Magill's Survey of Science, pp.

2384-2390.

139. Moore, Randy and Darrell Vodopich. 1991. **General Biology Laboratory Manual**. Mosby

Publishing Company, St. Louis, MO. 286 pp.

140. Moore, Randy and Darrell Vodopich. 1991. **Instructor's Manual to Accompany General**

**Biology Laboratory Manual**. Mosby Publishing Company, St. Louis, MO. 64 pp.

141. Moore, Randy. 1992. **Writing to Learn Biology**. Saunders College Publishing Company,

Philadelphia, PA. 352 pp.

142. Moore, Randy. 1992. **Instructor's Manual to Accompany *Writing to Learn Biology***.

Saunders College Publishing Company, Philadelphia, PA.

144. Moore, Randy. 1992. Writing to learn biology. Journal of College Science Teaching, In Press.

145. Vodopich, Darrell S. and Randy Moore. 1993. **Laboratory Exercises in Biology.**   
 Third Edition. Mosby Publishing Co., St. Louis, MO. 557 pp.

146. Vodopich, Darrell S. and Randy Moore. 1990. **Instructor's Manual for Laboratory   
 Exercises in Biology.** Third Edition. Mosby Publishing Co., St. Louis, MO.

120 pp.

147. Moore, Randy. 1992. How should we mark students' essays? Journal of College Biology Teaching 18: 3-9.

148. Moore, Randy and Emily Maimon. 1993. Transmission of gravitropic effectors from the root cap to the root. Plant, Cell and Environment, In Press.

149. Moore, Randy. 1993. Does writing about science enhance learning about science? Journal of College Science Teaching 22: 212-217.

150. Shi, Liang, Iain Miler, and Randy Moore. 1993. Immunocytochemical localization of IAA in primary roots of *Zea mays*. Plant, Cell and Environment 16: 967-973.

151. Moore, Randy and Iain Miller. 1993. Cellular differentiation in root caps of *Zea mays* that do not secrete mucilage. Plant, Cell and Environment 16: 1003-1009.

152. Moore, Randy. 1994. Writing to learn biology. Journal of College Science Teaching 23: 289- 295.

153. Moore, Randy, Dennis Clark, Kingsley Stern, and Darrell Vodopich. 1995. **The Evolution and Diversity of Plants**. Wm. C. Brown Publishers: Dubuque, IA.

154. Moore, Randy. 1994. Writing as a tool for learning biology. BioScience 44: 613-617.

155. Moore, Randy. 1995. **Biology Labs That Work: The Best of How-To-Do-Its**. National Association of Biology Teachers: Reston, VA.

156. Moore, Randy and Dennis Clark. 1994. **Plant Form and Function**. Wm. C. Brown Publishers: Dubuque, IA. 560 pp.

157. Moore, Randy. 1995. **Classic and Modern Readings in Biology**. Saunders College Publishing: Philadelphia, PA. In Production.

158. Moore, Randy and Darrell Vodopich. 1995. **Botany Lab Manual**. Wm. C. Brown Publishers: Dubuque, IA.

159. Moore, Randy. 1994. Using the literature to teach students about science: writing, rhetoric, and the structure of DNA. Journal of College Science Teaching 24: 113-121.

160. Moore, Randy and Darrell Vodopich. 1996. **General Biology Laboratory Manual**, Third Edition. Wm. C. Brown Publishing Co., Dubuque, IA.

161. Vodopich, Darrell S. and Randy Moore. 1993. **Laboratory Exercises in Biology.**   
 Fourth Edition. Wm. C. Brown Publishing Co., Dubuque, IA.

162. Vodopich, Darrell S. and Randy Moore. 1990. **Instructor's Manual for Laboratory   
 Exercises in Biology.** Fourth Edition. Wm. C. Brown Publishing Co., Dubuque, IA.

163. Moore, Randy and Iain Miller. 1996. How the use of multimedia affects student retention and learning. Journal of College Science Teaching 26: 289-293.

164. Moore, Randy. 1997. The persuasive Mr. Darwin. BioScience, 47: 107-114.

165. R. Moore, C. Gontang, and B. Essenfeld. 1996. **Biology**. Second Edition. Addison-Wesley Publishing Co., Menlo park, CA.

166. Moore, Randy. 1997. **Writing to Learn Science**. Saunders College Publishing Co., Philadelphia, PA.

167. Moore, Randy. 1999. Using the literature to teach students about science: Galileo, Newton, and the rhetoric of the Scientific Revolution. Issues in Writing 8 (2): 158-183..

168. Moore, Randy. 1997. Rachel Louise Carson. *In* Grinstein, Louise, Carol A. Bierman, and Rose K.

Rose, **Women in the Biological Sciences: A Biobibliographic Sourcebook**. Greenwood Press, pp. 62-69.

169. Moore, Randy. 1997. Grades and self-esteem. *In* Spack, Ruth. **Guidelines: A Cross Cultural Reading/Writing Text**. St. Martin’s Press.

170. Moore, R. 1998. Creationism in the United States. I. Banning evolution from the classroom. The American Biology Teacher, 60 (7), 486-507.

171. Moore, R. 1998. Creationism in the United States. II. The aftermath of the Scopes trial. The American Biology Teacher, 60 (8), 568-577.

172. Moore, R. 1998. Creationism in the United States. III. The ban on teaching evolution reaches the US Supreme Court. The American Biology Teacher, 60 (9), 650-661.

173. Moore, R. 1998. The influence of the Scopes trial on biology textbooks. In R.M. Cornelius, The Scopes Trial: A Challenge for American Education. Symposium held in Dayton, TN on 17 July 1998. Dayton, TN: Bryan College.

174. Moore, R. 1999. Creationism in the United States. IV. The aftermath of Epperson v. Arkansas. The American Biology Teacher, 61 (1), 10-17.

175. Moore, R. 1999. Creationism in the United States. V. The McLean decision destroys the credibility of “creation science.” The American Biology Teacher, 61: 92-101.

176. Vodopich, D. and R. Moore. 1999. Biology Laboratory Manual, 5th Edition. McGraw-Hill Publishing Co., Dubuque, IA

177. Moore, R. 1999. Science at Scopes’ school today. Journal of College Science Teaching 28: 229-230.

178. Moore, R. 1999. Learning from the best: Barbara McClintock. Journal of College Science Teaching 28 (May): 427-428.

179. Moore, R. 1999. Creationism in the United States. V. The McLean decision destroys the credibility of “creation science.” The American Biology Teacher, 61: 92-101.

180. Moore, R. 1999. Creationism in the United States. VI. Demanding “balanced treatment.” The American Biology Teacher, 61: 175-180.

181. Moore, R. 1999. Creationism in the United States. VII. The lingering impact of Inherit the Wind. The American Biology Teacher, 61: 246-251.

182. Moore, R. 1999. Language: a force that shapes science. Journal of College Science Teaching 28: 366.

183. Moore, R. 1999. Creationism in the United States. VIII. The lingering threat. The American Biology Teacher, 61: 330-340.

184. Uno, G., R. Storey, and R. Moore. 2001. **Principles of Botany**. Dubuque, IA: McGraw-Hill. In Press.

185. Moore, R. 2000. The tale of two tombstones. The Science Teacher (May): 8.

186. Vodopich, D. and R. Moore. 2002. **Biology Laboratory Manual**, 6th Edition. McGraw-Hill Publishing Co., Dubuque, IA.

187. Moore, Randy. 2000. **In the Light of Evolution: Science Education on Trial**. Reston, VA: The National Association of Biology Teachers.

188. Moore, Randy. 2001. The revival of creationism in the United States. Journal of Biological Education 35: 17-21.

189. Moore, R. (2002). The lessons of history: Transforming science to include developmental education. In D.B. Lundell and J.L. Higbee (Eds.), *Theoretical Perspectives for Developmental Education* (pp. 83-92). Minneapolis, MN: University of Minnesota, Center for Research in Developmental Education and Urban Literacy.

190. Black, Suzanne, Randy Moore, and Heidi Haugen. 2000. **Biology Labs That Work: The Best of How-To-Do-Its, Part II.** Reston, VA: National Association of Biology Teachers.

191. Moore, Randy. 2000. Writing about biology: How rhetorical choices can influence the impact of a scientific paper. Bioscene 26: 23-26.

192. Moore, Randy. 2000. How the Scopes Trial changed biology textbooks. In R.M. Cornelius and T. Davis (Eds.) (pp. 35-44). **Impact: The Scopes Trial, William Jennings Bryan, and Issues that Keep Evolving.** Dayton, TN: Bryan College Press.

193. Moore, Randy. Racism and the public’s perception of evolution. Submitted to National Center for Science Education Reports.

194. \*Moore, R. (2001). The evolving debate. *Plant Science Bulletin*, 46 (4), 110-113.

195. \*Moore, R. (2001). Administering science education: Expanding the pool of the “best and brightest.” *Review of Human Factor Studies*, 7 (1), 44-60.

196. \*Moore, R. (2001). The “rediscovery” of Mendel’s work. *Bioscene*, 27 (2), 13-24.

197. \*Moore, R. (2001). Why I support dissection in science education. *Journal of Applied Animal Welfare Science*, 4 (2), 135-138. Invited paper.

198. Moore, Randy. 2000. The courage of his convictions. Bioscene 26, 37-38.

199. Moore, R. (2002). Do state standards matter? How the quality of state standards relates to evolution instruction. *The Science Teacher*, 69 (1), 49-51.

199. Jensen, M., Moore, R., and Hatch, J. (2002). Cooperative learning, Part II: Setting the tone with group web pages. *The American Biology Teacher*, 64 (2), 118-120.

200. Moore, R., Jensen, M., and Hatch, J. (2002). Our apartheid. *The American Biology Teacher*, 64 (2), 87-91.

201. Moore, R. (2001). The “pretty redhead” who changed science education. *Journal of College Science Teaching*, 31 (3), 194-196.

202. Moore, R. (2001). The lingering impact of the Scopes trial on high school biology textbooks. *BioScience*, 51 (9), 790-796.

203. Moore, R. (2001). Racism, creationism, and the Confederate flag. *The Negro Educational Review*, 52 (1-2), 19-28.

204. Moore, R. (2001). Educational malpractice: Why do so many biology teachers endorse creationism? *Skeptical Inquirer*, 25 (6), 38-43.

205. Moore, R., Jensen, M., and Hatch, J. (2001). Bad teaching: It’s not just for the classroom anymore. *The American Biology Teacher*, 63 (6), 389-391.

206. Moore, R. (2001). Teaching evolution: Do state standards matter? *National Center for Science Education Reports*, 21 (1-2), 19-21.

207. Moore, R. (2001). Standards and the teaching of science in Minnesota. *Minnesota Science Teachers Association Newsletter*, 38 (1), 14.

208. Jensen, M., Moore, R., and Hatch, J. (2002). Cooperative learning, Part I: Cooperative quizzes. *The American Biology Teacher*, 64 (1), 29-34.

209. Vodopich, D. and Moore, R. (2002). **Biology Laboratory Manual**, Sixth Edition. Dubuque, IA: McGraw-Hill. 569 pages, full color. Each author contributed equally to this book.

210. Moore, R. (2002). *Evolution in the Courtroom: A Reference Guide*. Santa Barbara, CA: ABC-CLIO Publishers. (National press limited to six books per year)

211. Moore, R. (2002). Racism and the public’s perception of evolution. Reports of the National Center for Science Education, 22, 16-18, 23-26.

212. Moore, R. (2002). The fates of developmental education students at two-year and four-year colleges. In J.L. Higbee, D.B. Lundell, & I.M. Duranczyk (Eds), *Developmental Education: Policy and Practice* (pp. 55-64). Auburn, CA: National Association for Developmental Education.

213. Moore, R. (2002). Science education and the urban achievement gap. In D.B. Lundell, & J.L. Higbee (Eds.), *Exploring Urban Literacy & Developmental Education* (pp. 33-45). Minneapolis, MN: Center for Research on Developmental Education and Urban Literacy, General College, University of Minnesota.

214. Moore, R. (2002). Our apartheid: The imperative of multiculturalism in science education. The Science Teacher, 69, 10.

215. Moore, R., M. Jensen, L. Hsu, & J. Hatch. (2002). Saving the “false negatives”: Intelligence tests, the SAT, and developmental education. In D.B. Lundell, & J.L. Higbee (Eds.), *Exploring Urban Literacy & Developmental Education* (pp. 47-57). Minneapolis, MN: Center for Research on Developmental Education and Urban Literacy, General College, University of Minnesota.

216. Moore, R. (2002). Science, law, and the pursuit of knowledge: should unethical research be considered for scientific knowledge? Journal of College Science Teaching, 31, 355-358.

217. Moore, R. (2002). Credentials for all: Science education, jobs, and the “real world.” The American Biology Teacher, 64, 405-408.

218. Moore, R. (2002). Teaching evolution: Do state standards matter? BioScience, 52, 378-381.

219. Moore, R. (2002). America’s anti-evolution movement. Academic Questions, The Journal of the National Association of Scholars, 15, 69-78. (Invited paper)

220. Moore, R. (2002). Human factor decay, American exceptionalism, and the exclusion of women and minorities from science and science-driven globalization. Review of Human Factor Studies, 8, 74-89. (Invited paper)

221. Moore, R. (2002). The public’s comments about Susan Epperson’s challenge of the Arkansas anti-evolution law: Have feelings changed? Bioscene, 28, 25-29.

222. Moore, R. (2002). What standards? The American Biology Teacher, 64, 405-406.

223. Moore, R., M. Jensen, J. Hatch. (2002). The retention of developmental education students at four-year and two-year institutions. Research and Teaching in Developmental Education, 19, 5-13.

224. Moore, R. (2002). The sad status of evolution education in American schools. The Linnean, 18, 26-34. (Invited paper)

225. Moore, R. (2002). Darwin’s triumph. BioScience, 52, 385-386. (Invited book review)

226. Moore, R. (2002). Can “good science” come from unethical research? Journal of Biological Education, 36, 170-175.

227. Jensen, M., R. Moore, and J. Hatch. (2002). Cooperative learning – Part III. Electronic cooperative quizzes. The American Biology Teacher, 64 (3), 29-34.

228. Jensen, M. R. Moore, and J. Hatch. (2002). Cooperative learning – Part IV. Group web projects for freshman anatomy and physiology students. The American Biology Teacher, 64 (4), 206-209.

229. Moore, R., and Miksch, K. (2003). Evolution, creationism, and the courts: 20 questions. The Science Education Review, 2 (1), 1-12.

230. Moore, R. (2003). Attendance and performance: How important is it for students to attend class? Journal of College Science Teaching, 33 (6), 367-371.

231. Moore, R. (2003). Students’ choices in developmental education: Is it really important to attend class? Research and Teaching in Developmental Education, 20 (1), 42-52.

232. Moore, R. (2003). Do standards-based reforms penalize developmental education students? In I. M. Duranczyk & W. G. White (Eds.), Developmental Education: Pathways to Excellence (pp. 1-12). Available at <http://www.nade.net>

233. Moore, R. (2003). How we treat our relatives. The American Biology Teacher, 65 (8), 566-568.

234. Moore, R. & Miksch, K. L. (2003). Evolution, creationism, and the courts: 20 questions. The Science Education Review, 2 (1), 15.1-15.12.

235.. Moore, R. (2004). Do standards matter? In R. W. Bybee & J. Gerking (Eds.), Evolution in Perspective: The Science Teacher’s Compendium (pp. 25-28). Washington, DC: National Science Teachers Association Press.

236. Moore, R. (2003). Helping students succeed in introductory biology classes: Does improving students’ attendance also improve their grades? Bioscene, 29 (3), 17-25.

237. Moore, R. (2003). No free lunch. Journal of Scientific Explorations, 17 (1), 135-138.

238. Moore, R. (2003). Legal issues surrounding evolution and creationism. The Science Teacher, 70 (8), 68-69.

239. Moore, R., Jensen, M., Hsu, L., & Hatch, J. (2003). Lessons of history: Ethics and the public’s views of science and society. The American Biology Teacher, 65 (2), 85-89.

240. Moore, R. (2003). Attendance and performance: How important is it for students to come to class? Journal of College Science Teaching, 32 (6), 367-371.

241. Moore, R., Jensen, M., & Hatch, J. (2003). The problems with state educational standards. The Science Education Review, 2 (3), 83.1-83.8.

242. Moore, R., Jensen, M., Hatch, J., Duranczyk, I., Staats, S., & Koch, L. (2003). Showing up: The importance of class attendance for academic success in introductory science courses. The American Biology Teacher, 65 (5), 325-329.

243. Moore, R. (2003). Understanding the evolution-creationism controversy. Master of Liberal Studies Newsletter, 4 (4), 1, 5.

244. Moore, R., Jensen, M., & Hatch, J. (2003). Twenty questions: What have the courts said about the teaching of evolution and creationism in public schools? BioScience, 53 (8), 766-771.

245. Moore, R. (2004). Your questions answered. The Science Education Review, 2 (2), 59-60.

246. Jensen, M., R. Moore, J. Hatch, and Hsu, L. (2003). Ideas in practice: A novel, “cool” assignment to engage science students.  Journal of Developmental Education, 27 (2), 28-33.

247. Vodopich, D., & Moore, R. (2004). Biology Laboratory Manual, Seventh Edition. Dubuque, IA: McGraw-Hill. (work divided equally). This is the best-selling lab manual in the field, and sales are already at an all-time high for this edition. The manual sells > 30,000 copies per year.

248. Moore, R. (2004). How well do biology teachers understand the legal issues associated with the teaching of evolution? BioScience, 54 (9), 2-7. (peer-reviewed paper)

249. Moore, R. (2004). Minnesota’s grand old man of fundamentalism. Minnesota Science Teachers Association Newsletter, 40 (2), 6-9. (peer-reviewed paper)

250. Moore, R. (2004). Do colleges identify or develop intelligence? Journal of Developmental Education, 28 (1), 28-34. (peer-reviewed paper)

251. Moore, R. (2004). Who’s helped by help-session in developmental education courses? Research & Teaching in Developmental Education, 21 (1), 50-55. (peer-reviewed paper)

252. Moore, R. (2004). State standards and evolution: Are standards relevant to the teaching of evolution in public school biology classrooms? The Science Teacher, 71 (6), 41-44. (peer-reviewed paper)

253. Moore, R. (2004). Nature, vanity, and the teaching of evolution. Journal of College Science Teaching, 34 (4), 8-11. (peer-reviewed paper)

254. Moore, R. (2004). Helping students succeed in introductory science courses: How valid are students’ claims about their course-related behaviors? Journal of College Science Teaching, 33 (4), 14-17. (peer-reviewed paper)

255. Moore, R. (2004). Do standards matter? In R. W. Bybee & J. Gerking (Eds.), Evolution in Perspective: The Science Teacher’s Compendium (pp. 25-28). Washington, DC: National Science Teachers Association. (invited chapter)

256. Moore, R. (2004). The importance of a good start. In I. M. Duranczyk, J. L. Higbee, & D. B. Lundell (Eds.), Best practices for access and retention in higher education (pp. 115-123). Minneapolis, MN: Center for Research on Developmental Education and Urban Literacy, General College, University of Minnesota.

257. Moore, R. (2004). Does improving developmental education students’ understanding of the importance of class attendance improve students’ attendance and academic performance? Research & Teaching in Developmental Education, 20 (2), 24-39. (peer-reviewed paper)

258. Moore, R. (2004). Learning about the most famous biome. Journal of College Science Teaching, 34 (3), 6-8. (peer-reviewed paper)

259. Duranczyk, I. M., Staats, S., Moore, R., Hatch, J., Jensen, M., & Somdahl, C. (2004). Introductory-level college mathematics explored through a sociocultural lens. In I. M. Duranczyk, J. L. Higbee, & D. B. Lundell (Eds.), Best practices for access and retention in higher education (pp. 43-53). Minneapolis, MN: Center for Research on Developmental Education and Urban Literacy, General College, University of Minnesota.

260. Moore, R. (2004). Overseas education and training: The irrelevance of science education in developing countries. In S. B. K. Adjibilosoo (Ed.), The International Developmental Program of Activities (pp. 157-166). Chicago, IL: First Books. (invited chapter)

261. Moore, R. (2004). A’s and F’s. Journal of College Science Teaching, 33 (5), 6-7.

262. Moore, R. (2004). Human factor decay, American exceptionalism, and the exclusion of women and minorities from science and science-driven globalization. In Prempeh, E. O. K., Mensah, J., & Adjibolosoo, B. S. K. (Eds.), Globalization and the Human Factor (pp. 264-280). Chicago, IL: Ashgate Publishers.

263. Moore, R. (2004). Obstacles in the science lab. In Flowers, L. A. (Ed.), Diversity Issues in American Colleges and Universities ( pp. 184-187). Springfield, IL: Charles Thomas Publishing.

264. Moore, R. & Jensen, M. (2005). What factors predict the academic success of developmental education students? *The Learning Assistance Review*, 10 (1), 25-40.

265. Hatch, J., Jensen, M., & Moore, R. (2005). Manna from heaven or “clickers” from hell: Experiences with an electronic response system. *Journal of College Science Teaching*, 34 (7), 36-40.

266. Moore, R. (2005). Pre-enrollment and post-enrollment predictors of the academic success of developmental education students. *Journal of College Student Retention*, 6 (3), 325-335.

267. Moore, R. (2005). Factors that predict the success of developmental education students in an introductory biology course. *Research & Teaching in Developmental Education*, 21 (2), 35-42.

268. Hsu, L., Jensen, M., Moore, R., & Hatch, J. (2005). Ideas in practice: Science Courses in developmental education. *Journal of Developmental Education*, 29 (1), 30-37.

269. Moore, R., & Kraemer, K. (2005). The teaching of evolution and creationism. *The American Biology Teacher*, 67 (8), 568-575.

270. Moore, R. (2005). Advising students in developmental education: How accurate are students’ self-assessments? *Research & Teaching in Developmental Education*, 22 (1), 53-58.

271. Moore, R. (2005). Who does extra-credit work in introductory science courses? *Journal of College Science Teaching*, 34 (7), 12-17.

272. Moore, R. (2006). Pre- and post-admission predictors of the academic success of developmental education students. In J. L. Higbee, D. B. Lundell, & D. R. Arendale (Eds.), The General College vision: Integrating intellectual growth, multicultural perspectives, and student development (pp. 527-543). Minneapolis, MN: Center for Research on Developmental Education and Urban Literacy, General College, University of Minnesota.

273. Moore, R., & Christensen, L. (2005). Academic behaviors and performances of Generation 1.5 students who succeed in college science courses. The Learning Assistance Review, 10 (2), 17-30. (I did most of the work reported in this paper, as well as most of the writing).

274. Moore, R. (2005). Pre-enrollment and post-enrollment predictors of the academic success of developmental education students. Journal of College Student Retention, 6 (3), 325-335.

275. Moore, R. (2005). What factors predict the success of developmental education students in an introductory biology course? Research & Teaching in Developmental Education, 21 (2), 35-42.

276. Moore, R. (2005). Attendance: Are penalties more effective than rewards? Journal of Developmental Education, 29 (2), 26-33.

277. Moore, R., & Jensen, M. (2005). Selection school. Minnesota Science Teachers Newsletter, 43 (3), 8-11. (We both contributed to this idea and paper)

278. Moore, R. (2005). Who does extra-credit work in introductory science courses? Journal of College Science Teaching, 34 (7), 12-15.

279. Moore, R., & Jensen, M. (2005). What factors predict the academic success of developmental education students? The Learning Assistance Review, 10 (1), 25-40. (I did most of the work on this paper, but Murray’s contributions were also important)

280. Moore, R. (2005). Advising students in developmental education: How accurate are developmental education students’ self-assessments? Research & Teaching in Developmental Education, 22 (1), 53-58.

281. Moore, R. (2005). My best advice. Society for College Science Teachers Quarterly, 39 (3), 9.

282. Moore, R., & Kraemer, K. (2005). The teaching of evolution and creationism in Minnesota. The American Biology Teacher, 67 (8), 457-466. (I did most of the work on this paper)

283. Hsu, L., Jensen, M., Moore, R., & Hatch, J. (2005). Ideas in practice: Science courses in developmental education. Journal of Developmental Education, 29 (1), 30-37. (Leon did most of the work on this paper).

284. Moore, R., & Chung, C. (2005). “P.S. – I’m white, too: The legacy of evolution, creationism, and racism in the United States. The Science Education Review, 4 (2), 50.1-50.14.

285. Hatch, J., Jensen, M., & Moore, R. (2005). Manna from heaven or “clickers” from hell: Experiences with an electronic response system. Journal of College Science Teaching, 34 (7), 36-39. (Jay did most of the work on this paper).

286. Moore, R. (2006). Courts and the teaching of evolution and creationism. Society for College Science Teachers Quarterly, 40 (1), 13-16.

287. Vodopich, D., & Moore, R. Biology Laboratory Manual, 8th edition. Dubuque, IA: McGraw-Hill.

288. Moore, R., & Moore, J. (2006). *Evolution 101*. Westport, CT: Greenwood Press. (This manuscript is now in production; I’ll be getting page-proofs in July, and the book will be available in November, 2006).

289. Moore, R. & Moore, J. 2006. *Evolution 101*. Westport, CT: Greenwood Press.

290. Moore, R., & Jensen, M. (2006). Developmental education students’ views of college: What uncouples students’ goals from students’ outcomes? In D. B. Lundell, J. L. Higbee, I. M. Duranczyk, & E. Goff (Eds.), *Student standpoints about access programs in higher education* (pp. 59-69)*.* Minneapolis, MN: Center for Research on Developmental Education and Urban Literacy, Department of Post-Secondary Teaching & Learning, University of Minnesota.

291. Moore, R., & Jensen, M. (2006). Results of a 16-year study of cheating in introductory science classes. *The Science Education Review, 5*(3), 1-7.

292. Moore, R. (2006). Class attendance: How students’ attitudes about attendance relate to their academic performance in introductory science classes. *Research & Teaching in Developmental Education, 23*(1), 19-33.

293. Moore, R. (2006). Do introductory science courses select for effort or aptitude? In J. L. Mintzes & W. H. Leonard (Eds.), Handbook of College Science Teaching (pp. 137-145). Arlington, VA: National Science Teachers Assocation.

294. Moore, R. (2006). Predicting the first-year performances of developmental education students. *Research & Teaching in Developmental Education, 22*(2), 31-41.

295. Moore, R. (2006). The Tennessee Supreme Court appeal and other post-trial activities of key Scopes Trial participants. In R. Cornelius (Ed.), *Deconstructing Scopes: Unraveling the mythology of the world’s most famous trial* (pp. 28-35), Dayton, TN: Bryan College.

296. Staats, S., Duranczyk, I., Moore, R., Hatch, J., Jensen, M., & Somdahl, C. (2006). Communication for inquiry and access: Teaching techniques from discourse research. *The Science Education Review, 5*(3), 71-80.

297. Jensen, M., Moore, R., & Connor, J. (In press). Predictors of success for freshman anatomy and physiology students. *Human Anatomy and Physiology Educator*.

298. Moore, R. (2006). The importance of admissions scores and attendance to first-year performance. *Journal of The First-Year Experience & Students in Transition, 18*(1), 105-125.

299. Moore, R. (2006). Do high school behaviors set up developmental education students for failure? *The Learning Assistance Review, 11*(2), 19-32.

300. Moore, R. (2006). Evolution education. In J. Ciment (Ed.), *Social issues in America: An encyclopedia* (Vol. 3, pp. 659-668). New York: Sharpe Reference.

301. Moore, R. (2006). At-risk students: Higher education. In J. Ciment (Ed.), *Social issues in America: An encyclopedia* (Vol. 1, pp. 179-188). New York: Sharpe Reference.

302. Moore, R. (2006). My best advice. *Best Practices for College Science Teaching, 1*, 2005.

303. Moore, R., Froehle, A.M., Kiernan, J., &Greenwald, B. (2006). How biology students view evolution, the teaching of evolution, and the evolution-creationism controversy. The American Biology Teacher, 68(5), URL: <http://www.nabt.org/sites/S1/File/pdf/068-05-0007>.pdf

304. Jensen, M., Moore, R, Hatch, J., Hsu, L., & Somdahl, C. (In press). A scoring rubric for students’ responses to simple evolution questions: Darwinian components. *The American Biology Teacher*.

305. Jensen, M., Duranczyk, I., Staats, S., Moore, R., Hatch, J., & Somdahl, C. (2006). Using a reciprocal teaching strategy to create multiple-choice exam questions. *The American Biology Teacher, 68*(6), URL: http:www.nab.org/sub/pdf/068-06-0012.pdf

306. Moore, R. 2006. Courts and the teaching of evolution and creationism. Society for College Science Teachers Quarterly, 40 (1), 13-16.

307. Moore, R., & Jensen, M. 2006. Results of a 16-year study of cheating in introductory science classes. *The Science Education Review, 5*(3), 1-7.

308. Moore, R. 2006. Class attendance: How students’ attitudes about attendance relate to their academic performance in introductory science classes. *Research & Teaching in Developmental Education, 23*(1), 19-33.

309. Moore, R. 2006. Predicting the first-year performances of developmental education students. *Research & Teaching in Developmental Education, 22*(2), 31-41.

310. Staats, S., Duranczyk, I., Moore, R., Hatch, J., Jensen, M., & Somdahl, C. 2006. Communication for inquiry and access: Teaching techniques from discourse research. *The Science Education Review, 5*(3), 71-80.

311. Moore, R. 2006. The importance of admissions scores and attendance to first-year performance. *Journal of The First-Year Experience & Students in Transition, 18*(1), 105-125.

312. Moore, R. 2006. Do high school behaviors set up developmental education students for failure? *The Learning Assistance Review, 11*(2), 19-32.

313. Jensen, M., Duranczyk, I., Staats, S., Moore, R., Hatch, J., & Somdahl, C. 2006. Using a reciprocal teaching strategy to create multiple-choice exam questions. *The American Biology Teacher, 68*(6), URL: http:www.nab.org/sub/pdf/068-06-0012.pdf

314. Moore, R. 2007. What are students taught about evolution? McGill Journal of Education, 42 (2), 177-188.

315. Moore, R. 2007. The differing perceptions of teachers and students regarding teachers’ emphasis on evolution in high school biology classrooms. American Biology Teacher, 69 (5), 268-272.

316. Moore, R. and P. Jensen. 2007. Are students’ behaviors in college classes conditioned by their experiences in high school? The Learning Assistance Review, 12 (2), 47-55.

317. .Moore, R. and P. Jensen. 2007. Do open-book exams impede long-term learning in introductory biology courses? J. College Science Teaching, 36 (7), 46-49.

318. Moore, R. 2007. The evolution-creationism continuum in college biology classrooms. <http://apcentral.collegeboard.com/apc/members/courses/teachers_corner/185212.html>

319. Moore, R. 2007. Course performance, locus of control, and academic motivation among developmental education students. Research and Teaching in Developmental Education, 24 (1), 46-62.

320. Jensen, M., R. Moore, J. Hatch, and L. Hsu. 2007. A scoring rubric for students’ responses to simple evolution questions: Darwinian components. American Biology Teacher, 69 (7), 394-400.

321. Jensen, M., R. Moore, and J. Connor. 2007. Predictors of success for freshman anatomy and physiology students. Human Anatomy and Physiology, Summer, 7-10.

322. Crisp, K. M., M. Jensen, and R. Moore. 2007. Pros and cons of a group webpage design project in a freshman anatomy and physiology course. Advances in Physiology Education, 31, 343-346.

323. Moore, R. & P. Jensen. 2008. Do students’ grades in high school biology accurately predict their grades in college biology? J. College Science Teaching, 37 (3), 62-65.

324. Moore, R. 2008. Creationism in the biology classroom: What do teachers teach and how do they teach it? American Biology Teacher, 70 (2), 79-84.

325. Moore, R. 2008. Are students’ performances in labs related to their performances in lecture portions of introductory science courses? J. College Science Teaching, 37 (3) 66-70.

326. Moore, R. 2008. Do students’ performances and behaviors in supporting courses predict their performances and behaviors in primary courses? Research and Teaching in Developmental Education, 23 (2), 40-50.

327. Moore, R. 2008. Academic procrastination and course performance among developmental education students. Research and Teaching in Developmental Education, 24 (2), 56-67.

328. Moore, R. and P. Jensen. 2008. Do policies that encourage better attendance in lab change students’ academic behaviors and performances in introductory science courses? Science Educator, 17 (1), 64-71.

329. Jensen, M. and R. Moore. 2008. Reading trade books in a freshman biology course. American Biology Teacher, 70 (4), 206-211.

330. Moore, R. 2008. Academic motivation and performance by developmental education students in an introductory biology course. J. Developmental Education, 31 (1), 24-33.

331. Moore, R. 2007. The history of the evolution-creationism controversy and likely future developments. Pp. 11-30 in Jones, L. S. and M. J. Reiss (Eds.), Teaching about Scientific Origins: Taking Account of Creationism. New York: Peter Lang.

332. Moore, R. 2007. Diverse behaviors, diverse results: A motivation-based model for students’ academic outcomes. Pp. 129-143 in Hibgee, J., D. B. Lundell, and I. M. Duranczyk, (Eds.). Diversity and the Postsecondary Experience. Minneapolis, MN: Center for Research on Developmental Education and Urban Literacy.

333. Moore, R. and M. D. Decker. 2008. **More than Darwin: An Encyclopedia of the People and Places of the Evolution-Creationism Controversy**. Westport, CT: Greenwood Press.

334. Cotner, S., Brooks, D.C., and R. Moore. 2009. Is the age of the earth one of our “sorest troubles?” Students’ perceptions about deep time affect their acceptance of evolutionary theory. Evolution 64 (3), 858-864.

335. Moore, R. 2013. People and places: Jack T. Chick. Reports of the National Center for Science Education 33 (3), 2.1-2.3.

336. Moore, R. 2009. People and places: Siccar Point. Reports of the National Center for Science Education 29 (1), 26-27.

337. Moore, R. 2009. People and places: Temple of Serapis. Reports of the National Center for Science Education 29 (2), 38.

338. Jensen, P.A. and R. Moore. 2009. Students’ perceptions of their grades throughout an introductory biology course: Effect of open-book testing. Journal of College Science Teaching 58 (3), 58-61.

339. Jensen, P.A. and R. Moore. 2009. What do help sessions accomplish in introductory science courses? Journal of College Science Teaching (May-June), 60-64.

340. Moore, R. 2013. People and places: Othniel Charles Marsh. Reports of the National Center for Science Education 33 (1), 17.

341. Moore, R. and S. Cotner. 2009. Rejecting Darwin: The occurrence and impact of creationism in high school biology classrooms. American Biology Teacher 71 (2), 1-4.

342. Moore, R. 2008. Why aren’t they here? The reasons and consequences of absenteeism in developmental education courses. Research and Teaching in Developmental Education 25 (1), 23-29.

343. Moore, R. 2011. People and places: Don Aguillard. Reports of the National Center for Science Education 31 (1), 11-12.

344. Moore, R. 2009. People and places: William Paley. Reports of the National Center for Science Education 29 (426-27), 9.

345. Moore, R. and S. Cotner. 2010. The creationist down the hall: Does it matter when teachers teach creationism? BioScience 59 (5), 429-435.

346. Moore, R. 2010. People and places: The Glendive Dinosaur and Fossil Museum, Glendive, Montana. Reports of the National Center for Science Education 30 (6), 16, 21.

347. Moore, R. 2010. People and places: Jean-Baptiste Lamarck. Reports of the National Center for Science Education 30 (5), 33-34.

348. Bloom, M.W. and R. Moore. 2011. McLean v. Arkansas (1982) and beyond: Implications for Biology professors. Journal of College Science Teaching 40 (5), 75-84.

349. Moore, R. 2012. People and places: Carl Akeley. Reports of the National Center for Science Education 32 (4), 10.

350. Moore R. 2013. The numbers of life. American Biology Teacher 75 (8), 524-525.

351. Moore, R. and S. Cotner. 2008. Educational malpractice: The Impact of including creationism in high school biology courses. Evolution: Education and Outreach, doi 10.1007/s12052-008-0097-9

352. Moore, R. 2012. People and places: Dudley Field Malone. Reports of the National Center for Science Education 32 (2), 6-7.

353. Moore, R., S. Cotner, and A. Bates. 2009. The influence of religion and high school biology courses on students’ knowledge of evolution when they enter college. Journal of Effective Teaching 9 (2), 4-12.

354. Moore, R., D.C. Brooks, and S. Cotner. 2011. The relation of high school biology courses and students’ religious beliefs to college students’ knowledge of evolution. American Biology Teachers, 73 (4), 222-226.

355. Moore, R. 2011. People and places: Paul Kammerer. Reports of the National Center for Science Education 31 (3), 10.

356. sciences: A need for more role models? Journal of College Science Teaching, 40 (5), 96-101.

357. Moore, R. 2013. People and places: Aimee Semple McPherson. Reports of the National Center for Science Education 32 (1), 9.

358. Moore, R. 2011. People and places: Billy Sunday. Reports of the National Center for Science Education 31 (2), 10.

359. Moore, R. 2011. People and places: Cerro Tijeretas, Isla San Cristóbal, Galápagos. Reports of the National Center for Science Education 31 (4), 9-11.

360. Moore, R. 2011. People and places: Aimee Semple McPherson. Reports of the National Center for Science Education 31 (6), 9.

361. Vodopich, D., & Moore, R. Biology Laboratory Manual, 10th edition. Dubuque, IA: McGraw-Hill.

362. Moore, R. and Decker, M. 2008. *More than Darwin: The People and Places of the Evolution-Creationism Controversy*. Westbrook CT: Greenwood Press.

363. Moore, R. and S. Cotner. Evolution and creationism in America’s biology classrooms. The BioLogos Forum: Science and Faith in Dialogue, January 22, 2013.

364. Cotner, S. and R. Moore. 2011. Arguing for Evolution: An Encyclopedia for Understanding Science. Santa Barbara, CA: Greenwood Press.

365. Moore, R. 2014. When religion demands ignorance in biology classrooms. American Biology Teacher, 76 (2), 76-78.

366. Moore, R., M. Decker, and S. Cotner. 2010. Chronology of the Evolution-Creationism Controversy. Santa Barbara, CA: ABC-CLIO.

367. Moore, R. and S. Cotner. 2013. Understanding Galápagos: What You’ll See and What It Means. Dubuque, IA: McGraw-Hill

368. Moore, R. In Press. The “man tracks” in Glen Rose. Reports of the National Center for Science Education.

369. Cotner, S., A. Schauer, and R. Moore. In Press. Teaching evolution to students with compromised backgrounds and confidence about evolution – is it possible? The American Biology Teacher.

370. Moore, R. In Press. Did humans live with dinosaurs? Excavating “man tracks” along the Paluxy River. American Biology Teacher 76 (4).

371. Moore, R. 2014. Dinosaurs by the Decade: An Encyclopedia of Dinosaurs in Science, Religion, and Society. Santa Barbara, CA: ABC-CLIO.

Plus numerous chapters in introductory biology textbooks (e.g., the botany unit in *Plant*

*Biology* and *Life* by Ricki Lewis) and many editorials, interviews, and essays in journals, magazines, television shows, and news digests. I have also published several book reviews in the past five years (e.g., in Evolution: Education and Outreach in 2009, CBE-Life Sciences Education in 2010, Edge Science in 2011, and American Biology Teacher in 2011). I have been cited repeatedly in national media (e.g., New York Times and Al-Jazeera in 2011) and regional media (Minnesota Post in 2011).

**Presentations, Posters, and Exhibits**

I regularly present papers at national meetings sponsored by groups such as the National Association of Biology Teachers, National Science Teachers Association, and others.

I’ve presented seminars about teaching and/or research at Texas A&M University, Louisiana State University, Washington State University, University of Illinois, The University of Texas at Austin, University of California at Riverside, University of New Mexico, Stephen F. Austin State University, The University of Texas at Arlington, Trinity University, Angelo State University, West Virginia (Kearneysville) Fruit Research Center, University, University of Wisconsin at Madison, The Ohio State University, Georgia Tech, Fairchild Tropical Garden, University of Georgia, Texas Tech University, University of Florida, University of California at Los Angeles (UCLA), University of Wisconsin at Milwaukee, Kennedy Space Center (Space Life Science Training Program), Johnson Space Center, Wright State University, University of Dayton, University of Cincinnati, Pontificia Universidad Católica de Chile, University of Alabama, Marshall Space Center, University of Vermont, Cleveland State University, Central States University, California State University, Chico, University of Michigan, Kansas State University, Antioch University, University of Arizona, University of Houston, University of Akron, Youngstown State University, Western Carolina University, Cleveland Regional Biology Teachers Association, Utah Biology Teachers Association, Florida Science Teachers Association, Connecticut Association of Biology Teachers, Virginia Science Teachers Association, University of California at Davis, Colorado State University, University of Minnesota, Conference for the Advancement of Science Teaching (CAST), National Association of Scholars, Humanists of Minnesota, Scopes Trial Symposium and Festival, Louisiana State University, Biological Sciences Curriculum Study, Colorado College, Hampden-Sydney College, Minnesota Science Teachers Association, College of St. Catherine, Empire State Association of Two-Year College Biology Teachers, and others. Most recently, I was the keynote speaker at the Midwest Ecology and Evolution Conference: Celebrating Darwin’s Legacy (University of Nebraska, March 27-29, 2009), Augustana Symposium about Evolution (April 20-21, 2012). As I’ve gotten older, I’ve declined most invitations for such talks.

**TEACHING AND CURRICULUM DEVELOPMENT**

I’ve taught the following courses: Science Methods, Teaching Biology, Plant Anatomy, Plant Physiology, Cytology, Introductory Botany, Introductory Biology (majors and nonmajors), Electron Microscopy, Scientific and Technical Writing, Safe Use of Nucleotides, Writing to Learn Biology, The Evolution-Creationism Controversy, Several workshops and weekly seminars, including those on TA Training, Biological Photography, Image Analysis and Light Microscopy.

At the University of Minnesota I have taught three different introductory biology courses, several freshman seminars, and an honors course. I also developed and teach a course about the evolution-creationism controversy and our Biology of the Galápagos course.

**ADVISING AND MENTORING**

**Undergraduate Student Activities**

I have mentored many students since coming to the University of Minnesota (e.g., as part of the President’s Distinguished Mentor Program for several years); many of those mentorships have produced publications (e.g., Phil Jensen, Alexandra Schauer), and other manuscripts are submitted and/or in preparation (e.g., Andrew Hughes, Jacquelyn Cameron).

**SERVICE AND PUBLIC OUTREACH**

A. Assistant Editor, *Journal of the Texas Society of Electron Microscopy*, 1982-1983  
 B. Advisory Panel, *American Biology Teacher*, 1982-1983  
 C. Education Committee, Botanical Society of America, 1982-present  
 D. Nominating Committee, Texas Society of Electron Microscopy, 1982  
 E. Secretary-Treasurer, Baylor University Chapter of Si*gma Xi, 1982-83  
 F. Numerous reviews of manuscripts and grants (e.g., Science, American Journal of Botany,   
 Annals of Botany, National Science Foundation, Southwestern Naturalist,* etc.), 1980-present  
 G. Fellow, Summer Teaching Institute, Baylor University, 1981  
 H. Chairperson of numerous paper sessions at professional meetings, 1980-present  
 I. Convener, Symposium on Vegetative Compatibility Responses in Plants, Pennsylvania State University, 1982  
 J. Chairperson-elect, Developmental and Structural Section, Botanical Society of America, 1985-86  
 K. Treasurer, Physiological Section, Botanical Society of America, 1985-88  
 L. Editor, *Guide to Graduate Study in Botany 1983*, Botanical Society of America, Miscellaneous Series Publication No. 163.

M. Treasurer, Texas Society for Electron Microscopy, 1983-1985  
 N. Vice President, Baylor University Chapter of Sigma Xi, 1983-84  
 O. Convener (with James Mauseth and Wayne Fagerberg), Symposium on the Application of

Stereological Analyses to Cellular Ultrastructure, August, 1984, Ft. Collins, Colorado.  
 P. Advisory Board, *Annual Editions - Focus Biology*. Dushkin Publishing Group, Guilford, Connecticut, 1983-present  
 Q. Editor-in-Chief, *Journal of the Texas Society for Electron Microscopy*, 1983-1986  
 R. Member of Selection Committee for the Jeanette Siron Pelton Award, presented annually by the   
 Botanical Society of America, 1983-1988 (chairperson 1986 to 1988)  
 S. President, Baylor University Chapter of Sigma Xi, 1984-1985  
 T. Vice-chairperson, Section of Biological Sciences, Texas Academy of Science, 1984-85  
 U. Editor-in-Chief, *The American Biology Teacher*, 1983-2004

V. Selected by NASA to direct a research project to be carried aboard flight 61-C of the Space

Shuttle **Columbia**, 1986  
 W. President-Elect, Texas Society for Electron Microscopy, 1985-86

X. Chairperson, Biological Sciences Section, Texas Academy of Science, 1985-86  
 Y. Associate Editor, *Texas Journal of Science*, 1985-88

Z. Visiting Professor, Pontificia Universidad Católica de Chile, Santiago, Chile, 1985

AA. Fellow, Workshop on Biological HVEM, University of Colorado, 1985  
 BB. Nominee for Fulbright Award, 1985, 1986

CC. Chairperson, Selection Committee for the Katherine Esau Award, 1986-87   
 DD. Chairperson, Developmental and Structural Section, Botanical Society of America, 1986-7

EE. Assistant Co-District Director, Science Teachers Association of Texas, CAST, NSTA Area

Conference, 1987

FF. Evaluator, National Science Teachers Association, 1987

GG. Selection Committee for Presidential Awards in Science and Mathematics Teaching, Texas

Education Agency, 1985

HH. Editor, *The Biology Newsletter*, 1987-1992

II. Member, Research Subcommittee, National Research Laboratory Commission, 1987

JJ. Fellow, Safe Use of Radionuclides Shortcourse, Oak Ridge, TN, 1989

KK. Reader, Advance Placement, Educational Testing Service, 1988

LL. Evaluator, Department of Biology, University of Northern Kentucky, 1989, 1992

MM. Secretary-Treasurer, Structural and Developmental Section, Botanical Society of America,

1989-1992

NN. Consulting Editor, *McGraw Hill Encyclopedia of Science and Technology*, 1991-present

OO. Special Education Advisory Board, National Science Teachers Association, 1990-93

PP. Inter-organizational Liaison Committee, National Association of Biology Teachers, 1990-92

QQ. Selection Committee, The Campbell Prize, 1991

RR. Grant Review Panelist, National Science Foundation, 1990-92, 1996

SS. Member, Multimedia Program for Animal Dissection in General Biology Labs, 1991

TT. Member, Advisory Committee, Secondary Science Teachers Education Program

UU. Reader, Educational Testing Service, 1991, 1992

VV. Panelist, Teacher Enhancement Program, National Science Foundation, 1991, 1992

WW. Outside Evaluator, Biology Department, Northern Kentucky University, 1988, 1992

XX. National Advisory Panel, *BioCom* (supported by NSF), 1992-95

YY. Advisory Board, Society for College Science Teachers, 1993-94

ZZ. NSTA Committee on Publications, 1994-97

AAA. Chair, Editorial Board, *BioScience* , 1995-1999

BBB. Council for Undergraduate Research Liaison, 1994-1999

CCC. Manuscript Review Panel, *Journal of College Science Teaching*, 1996-present

DDD. Liaison Officer, Northeast Ohio Universities College of Medicine (NEOUCOM), 1994-1997

EEE. Editorial Board, *Issues in Writing*, 1996-present

FFF. Editorial Board, *Journal of Biological Education*, 1998-present

GGG. Responsible Conduct in Research, Parts I and II, University of Minnesota, 2000

HHH. Editorial Board, National Association for Developmental Education (NADE) monographs, 2001-2006

III. Board of Directors, Minnesota Science Teachers Association, 2002-2006

JJJ. Editorial Board, The Science Education Review, 2002-present

KKK. Chair, Evironmental Science Division, ActionBioscience, 2001-2002

LLL. Chair, Evolution Division, ActionBioscience, 2001-2002

MMM. Evaluator, ACT Assessment

NNN. Chief Science Reviewer, Ohio Department of Education, 2002

OOO. Reviewer of science-education programs, The Ohio State University, Columbia College, and others

PPP. Editorial Board, National Association for Developmental Education

QQQ. Councilor-at-Large, Society for College Science Teachers, 2004-2006

RRR. Secretary-Treasurer, Society for College Science Teachers, 2006-208

SSS. Board of Directors, Minnesota Citizens for Science Education, 2006-present

I’ve served on every committee/governance group imaginable, including the University Promotion & Tenure Committees, Policy & Planning Committees, Scholastic Standing Committees, Research Committee, Library Committee, University Senate, Honors Committee, Reorganization Committee, Self-Study Committee, Scholarship Committee, Mentor Committee, Faculty Development Committee, Radiation Safety Committee, Academic Policies Committee, Search Committees, Review Committees, Infectious Waste Committee, Steering Committee, Parking Committee, Graduate Committee, Seminar Committee, Environmental Review Committee, Incentives Committee, General Education Committee, Parking Committee, Writing Across the Curriculum Committee, Newsletter Committee, Curriculum Committee, Science Fair Committee, search committees (most recently as chair) and far too many others. I have also served as a faculty advisor/sponsor of a variety of campus organizations (e.g., Tau Kappa Epsilon, NEXUS) and community groups (e.g., Family Abuse Center). Most recently here at the University of Minnesota, I’ve served on the Student Academic Integrity Committee (SAIC; 2007-2011) and The Senate Research Committee (2010-2013).

I’ve recently reviewed several colleagues’ promotion dossiers at a variety of universities, including the University of Georgia, Syracuse University, and others.

I attend about two workshops and/or short-courses per year. Past topics have included sexual harassment, performance evaluation, faculty roles and rewards, academic leadership, responsibility centered budgeting, training graduate students, writing across the curriculum, diversity, the core curriculum, hiring minorities, grant writing, total quality management, enhancing undergraduate research, using technology to enhance teaching and learning, assessment, reconciling gender issues in higher education, strategic planning, multiculturalism, use of teaching portfolios to enhancing teaching, and others.