

Curriculum Vitae

Bruce B. Smith

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Date and Place of Birth: September 28, 1941. Poplar Bluff, MO

Marital Status: Married Elizabeth Ann Tidwell, July 6, 1963

Education: B.S., Arkansas State University, 1963
M.S., University of Mississippi, 1966
Ph.D., University of South Carolina, 1971
Post Doctoral Research, Genetics Course Work, Johns Hopkins Medical School, 1978
Continuing Education Credits in Wetland Delineation, Rutgers University, 1994, 1995

Honors and Community Activities: Tri Beta, Biology Honors, Arkansas State University 1963; Sigma Xi, University of South Carolina, 1971; National Science Foundation Fellowships, University of Mississippi, 1963-64; Summer Research Grants, University of South Carolina, 1969-71; Sigma Xi Grant for research equipment, 1972; Chataqua Participant(NSF), University of Maryland, 1974-75; Participated in XII International Botanical Congress, USSR, 1975; Sabbatical Studies J.F. Kennedy Institute for Retarded and Handicapped, Genetics Department, Johns Hopkins University Medical School, 1978; Appointed to York City School Board, 1978; Elected to York City School Board, 1979-83; Appointed Trustee, Martin Memorial Library, York, PA, 1984-Present; Appointed Trustee, York County Library System, 1988-93; served as Treasurer, 1993; remain an associate member of Martin Memorial Library Board. Participated in 10th International Association of Sexual Plant Reproduction, Como, Italy, 1991; Featured in *Biospheres*, Alumni Profile, Department of Biological Sciences, University of South Carolina, 1991; Participated in the 8th Crucifer Genetics Workshops, University of Saskatchewan, Saskatoon, Saskatchewan, 1992; Appointed to Independent Task Force Committee, York Chamber of Commerce, to study Cogeneration for West Manchester Township, 1992; Received Professional Service and Leadership Award, York College Alumni Association, 1993. Attended and presented poster at XVI Int. Bot. Congress, St. Louis, Mo, 1999:

Work Experience:

	1963-66	Taught High School Chemistry, Physics, and Biology, Ironton and Zalma, MO.
	1966-67	Instructor, Biology Department, Parsons College, Fairfield, IA.
	1967-68	Assistant Professor, Biology Department, Atlantic Christian College, Wilson, NC.
	1968-71	Graduate Student, Instructor, Biology Department, University of South Carolina, Columbia, SC.
	1971	Awarded Ph.D. University of South Carolina
	1971	Consultant, Water Resource Commission, State of South Carolina
	1971	Appointed Assistant Professor, Biology Department, York College of PA
	1977	Elected Chair 1977-93
	1980	Full Professor Rank Awarded, 1980

Biological Consulting: Since 1971, without soliciting, I have accepted biological consulting opportunities on an irregular basis, some for remuneration, some gratis. Examples of recent activities available upon request.

Professional Affiliations:

Botanical Society of America; Society for Wetland Scientists; Southern Appalachian Botanical Society; Pennsylvania Academy of Science; Crucifer Genetics Cooperative; International Association of Sexual Plant Reproduction

**Publications
(Articles-Books)**

- Smith, B.B. and J.M. Herr, Jr. 1971. Ovule Development, Megasporogenesis, and Early Embryology in *Ammania coccinea* Rothb. J Elisha Mitchell Soc. 87(4) 192-99.
- Smith, B.B. 1973. The Use of a New Clearing Technique for the Study of Early Ovule Development, Megasporogenesis, and Megagametogenesis in Five Species of *Cornus L.* Amer. J. Bot. 60:(4) 322-338.
- Smith, B.B. 1975. A quantitative Analysis of the Megagametophyte of Five Species of *Cornus L.* Amer. J. Bot. 62(4) 387-399.
- Farence, D.R. Jr., and B.B. Smith. 1975. Effects of Chemical Pretreatments on *Ludwigia alternifolia L.* Ovules Prior to Immersion in Herr's Clearing Fluid. Proc. PA. Acad. Sci. 49: 89-91.
- Smith, B.B. and L.K. Johnson. 1980. Early Ovule Development, Megasporogenesis and Megagametogenesis in *Solidago grammifolia* var Nuttall and *Solidago canadensis* var Canadensis (Asterales: Asteraceae: Tubliflorae: Astereae). Amer. J. Bot. 67(5) 612-618.
- Smith, B.B. 1981. Early Ovule Development, Megasporogenesis, and Megagametogenesis of *Capsella bursa-pastoris (L.) Medicus* using Herr Fluid as Clearing Agent. Proc. PA. Acad. Sci. 50: 130-132.
- Smith, B.B. 1982. The Eden Hybrids. The Azalean. IV (1): 1-6.
- Smith, B.B. and M. McGowan, and J. Yeagley. 1984. Determining Cell Volumes of Functional Megaspores for Possible Aid in Species Determination. Proc. PA Acad Sci.57(2): 195-197.
- Smith, B.B., and S. Neely. 1985. Early Ovule Development, Megasporogenesis and Megagametogenesis in McKana Hybrid Columbine, *Aquilegia sp.* (Ranunculaceae). Proc. PA Acad Sci. 59:23-26.
- Smith, B. B. And B.A. Mummert. 1987. A Study of the Woody Flora of Gettysburg National Military Park. Proc. PA. Acad. Sci. 86: 122-128.
- Smith, B.B. and T.A. Bankert. 1987. Early Ovule Development, Megasporogenesis, and Megagametogenesis in *Cichorium intybus L.* (Asteraceae). Proc. PA. Acad. Sci. 61: 109-112.
- Smith, B.B. and S. Gilbert. 1989. Early Ovule Development, Megasporogenesis, and Megagametogenesis in *Draba verna L.* (Cruciferae) Proc. PA. Acad. Sci. 63(2): 88-92.
- Smith, B.B. and J.E. Lightner. 1989. Early Ovule Development, Megasporogenesis, and Megagametogenesis in *Brassica campestris L.* (Cruciferae). Proc. PA. Acad. Sci. 63(3): 161-165.
- Smith, B.B. 1991. Comparisons of Early Ovule Development through Megagametogenesis in Rapid-Cycling *Brassica rapa L.* And *B. campestris L.* using the Herr Clearing Techniques. Springer-Verlag, New York, Berlin.(Chapter of Book).
- Smith, B.B. and B. Sterner. 1994. Early Ovule Development, Megasporogenesis and Megagametogenesis in Rapid-Cycling *Brassica juncea (L.)* Cosson. J PA Acad. Sci. 68(2):63-66.
- Smith, B.B. 1994. Plant Taxonomy and Seasonal Flora. HarperCollins Custom Books. New York, NY.
- Smith, B.B. 1995. Laboratory Topic for Principles of Biology. Whittier Publications, Inc. Lido Beach, New York.
- Smith, B.B. 1996. Saunders Laboratory Manual for Biology. Carol Eberhardt's manual adapted for YCP. Custom Published by Saunders, New York, NY
- Smith, B.B. 1998. Plant Taxonomy and Seasonal Flora 2nd Ed. Harvey Printing Company. York, PA.
- Smith, B.B. and M. Virden. 1999. Early Ovule Development, Megasporogenesis, and Megagametogenesis in Rapid Cycling *Brassica nigra (L)* Koch. J. Pa. Acad. Sci. 73(3) 113-116.
- Smith, B.B. 2002. Plant Taxonomy and Seasonal Flora. 3rd Ed. POS Publications, York, PA
- Smith, B.B. 2002. Laboratory Topics for BIO152, 4th Ed. POS Publications, York, PA
- Smith, B.B. 2003. Plant Taxonomy and Seasonal Flora 4th Ed. First Capital Printing Co. York PA

Smith, B. B. 2003. Laboratory Topics Biology II, 6-2Ed. First Capital Printing Co. York, PA

Smith, B.B. 2006. Plant Taxonomy and Seasonal Flora 5th Ed. Copley Custom Textbooks, Ann Arbor, MI

Smith, B.B. 2007. Laboratory Topics for BIO153, 8th Ed. Academic Printing Services, YCP

Smith, B.B. 2007. Plant Morphology/Embryology Laboratories, 3rd Ed. Academic Printing Services, YCP

Publications List
(Abstracts-Papers and Posters Presented)

Smith, B.B. and J.M. Herr Jr. 1970. Megagametogenesis and Early Embryogeny in *Ammania coccinea* Rothb. (Angiospermae: Myrtales: Lythraceae). ASC Bulletin 17:(2) 64.

Smith, B.B. and J.M. Herr, Jr. 1971. A Study of Some Embryological Features of *Cornus* by the Use of a Clearing Technique. (Angiospermae: Umbellales: Cornaceae). ASB Bulletin. 18:2.

Smith, B.B. 1971. Further Application of a Clearing Technique for Cytological Investigation of Angiosperm Embryology, namely: Leguminosae, Onagraceae, Cornaceae. Thirteenth Annual Meeting of Developmental Biologist-March Meeting, Florida State University.

Smith, B.B. 1972. Comparison of Sizes of Megagametophyte Stages Among Five Species of *Cornus* L. ASB Bulletin 19:(2) 100-101.

Smith, B.B. 1973. Quantification in Morphological Studies with Reference to the Megagametophyte of Angiosperms. ASB Bulletin 20:(2) 82.

Smith, B.B. 1974. Floral Ontogeny of *Eupatorium perfoliatum* L. (Compositae) with Special Reference to Why Angiosperms Embryologists Should Employ the Clearing Fluid 4-1/2 ("Herr Fluid"). ASB Bulletin 21:(2) 61.

Smith, B.B. 1975. Ovule Development of *Capsella bursa-pastoris* L. Medicus (Brassicaceae) Using Herr Fluid as a Clearing Agent. ASB Bulletin 22:(2) 80.

Johnson, L.D. and B.B. Smith. 1977. Early Ovule Development, Megasporogenesis, and Megagametogenesis in *Solidago grammifolia* (L.) Salisbury (Asterales: Asteraceae: Tubiliflorae: Astereae). ASB Bulletin 24:(2) 61.

Smith, B.B. and M. Cramer. 1977. The Use of 100% Ethyl Alcohol as a Pretreatment of *Rheo discolor* Ovules Prior to Immersion in Herr's Clearing Fluid (HCF). Proc. PA. Acad. Sci. 51:(1) 99.

Johnson, L.D. and B.B. Smith. 1978. An Intra and Interspecific Quantitative Analysis of the Plane Areas of Megagametophytic Stages and Their Ovules in Canadian and Lance-Leaved Goldenrod *Solidago canadensis* (L.), *grammifolia* var. *Nuttallii* Abstracted. Botanical Society of America Meetings, Blacksburg, Virginia, Miscellaneous Publications No. (156) 40.

Johnson, L.D. and B. B. Smith. 1978. Early Ovule Development, Megasporogenesis and Megagametogenesis in *Solidago canadensis* var. *canadensis* (Asterales: Asteraceae). ASB Bulletin 25: (2) 95.

Winkler, P.R., B.B. Smith, and R.F. Denoncourt. 1987. Dominant Genera in a Thermal Effluent and in Stomachs of Blue Tilapia, *Oreochromis aureus*, Susquehanna River, Pennsylvania. 63rd Annual Meeting. PA. Acad. Sci. Lancaster, PA.

Bankert, T.A. and B.B. Smith. 1987. Early Ovule Development, Megasporogenesis and Megagametogenesis in *Cichorium intybus* (Asteraceae). 63rd Annual Meeting. PA. Acad. Sci. Lancaster, PA.

Smith, B.B., C.Eveler, and M. Berkebile. 1993. Delineation of Two York County PA Wetlands Using the Routine Onsite Determination Method. 69th Annual Meeting. PA. Acad. Sci. Reading, PA.

Smith, B.B. and J.Ganci. 1993. Effect of Increased Ambient Air Temperature on Self-Incompatibility in *Raphanus sativus* 69th Annual Meeting. PA. Acad. Sci. Reading, PA.

Rehnberg, B; B. Smith, and K.E. Stauffer. 1993. Energetic Cost of Terrestrial Locomotion in The Snake *Thamnophis sirtalis*. 69th Annual Meeting. PA. Acad. Sci. Reading, PA.

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Smith, B.B. and R. Bull. 1996. A Comparison of Two Methods For Delineating A Wet Meadow In Codorus Township, York County, PA. J. Pa. Acad. Sci. Vol. 69, Supplement and Index Issue. P 142.

Smith, B.B. and M. Virden. 1999. Early Ovule Development Through Megagametogenesis of Rapid-Cycling *Brassica nigra* (L.) Koch. J. Pa. Acad. Sci. Vol. 72, Supplement and Index Issue. P 184

- Smith, B.B. and M. Virden. 1999. The Use of Amylase to Dissolve Starch Deposits in Ovules of Rapid Cycling *Brassica nigra* (L.) Koch. Cleared with Modified Herr Clearing Fluid. XVI Int. Bot. Congress.(Abstracts Special Issue) St. Louis, MO. P 586.
- Smith, B.B, C. Marlow, and J. Cutaia. 2001. Selected Stages of Ovule and anther Development in *Cardamine pensylvanica* Muhl. Pa. Acad. Sci. Vol 74, Abstract and Index Issue.
- Smith, B.B, and Christina Gouirand. 2003. A Study of Early Ovule Development of *Impatiens pallida* Nutt. Using the Herr Clearing technique. Pa. Acad. Sci. Vol. 76, Abstract and Index Issue.
- Smith, B.B., and V. Marachal. 2004. Pennsylvania's Compensatory Wetland Mitigation: An analysis of Selected Sites in York County. PA.Acad. Sci. Vol 77, Abstract and Index Issue.
- Smith, B.B., and B. May. 2004. Can Association Patterns Between Unrelated Stimuli Be Instilled in The Plant *Pisum sativum* L. Pa. Acad. Sci. Vol 77. Abstract and Index Issue.
- Gough, L.,and B. Smith. 2005. Quantification of Selected Stages of Megasporogenesis and Megagametogenesis in *Arabidopsis thaliana* (L.) Heynh Columbia Ecotype. PA .Acad. Sci. Vol 77. Abstract and Index Issue
- Smith, B.B. and Jaime Stum. 2005. Comparison of Selected Stages of Megasporogenesis and Megagametogenesis in *Arabidopsis thaliana* (L.) Heynh Landsberg *erecta* and Columbia Ecotypes. Abstracts Scientific Meeting, No. 129 Botany 2005, Austin, TX
- Smith, B., and A.Dilaha. 2007. Identification of Ovule and Embryo Sac Developmental Stages using Coinciding Bud Length in *Arabidopsis thaliana* (L.) Heynh Columbia Ecotype. PA .Acad. Sci. Vol 79. Abstract and Index Issue
- Smith, B. and A. Hughes, 2007. Determining the Relationship between the Stamen and Pistil Length Relative to Megasporangial Stages of *Arabidopsis thaliana* (L.) Heynh Columbia Ecotype. PA .Acad. Sci. Vol 79. Abstract and Index Issue
- Smith, B. and A. Syed. 2008. Measuring and Computing Means of Length and width of Ovules from *Arabidopsis thaliana* (L.) Heynh. Undergoing Megagametogenesis and Determining the Fibonacci Sequence. PA. Acad. Sci. Vol.81. Abstract and Index Issue.
- Smith, B. and S. Syed. 2008. Pistil Length as Indicator of Ovule Stages and Use of Length and Width Means of Ovule Stages to determine if Fibonacci Sequence is Produced in *rc Brassica rapa* L. PA. Acad. Sci. Vol. 81. Abstract and Index Issue.

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