CURRICULUM VITAE

Joan E. N. Hudson

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Marital Status: Married, three daughters

EDUCATION

Southwest Texas Junior College, 1974-1976
Texas A&M University, B.S., Horticulture, 1978, GPA: 4.00
M.S., Botany, 1979, GPA: 4.00
Iowa State University, Ph.D., Botany, l985, GPA: 3.88

TEACHING EXPERIENCE

Southwest Texas Junior College:
Freshman Orientation, 1975
Teaching Assistant, General Botany laboratory, 1975-1976
Texas A&M University:
Teaching Assistant, General Botany laboratory, 1978-1979
Vascular Plant Morphology laboratory, 1979
Iowa State University:
Teaching Assistant, General Botany laboratory, 1979-1982
Dendrology laboratory, 1979-1982
Plant Physiology laboratory, 1983

Sam Houston State University: Fall 1991 to present
General Botany, lecture
Contemporary Biology for nonscience majors, lecture
Introductory Cell Biology, lecture
Biology of Cells, lecture
Plant Morphology, lecture and laboratory
Plant Taxonomy, lecture and laboratory
Intro. to Molecular Biology, lecture and laboratory
Undergraduate Seminar
Graduate Seminar
Plant Physiology, lecture and laboratory
Advanced Plant Physiology, graduate class, lecture
Plant Pathology, lecture
Individual research projects with undergraduate students (see below)

RESEARCH EXPERIENCE

Texas A&M University:
Technician, Botany, summer 1978
Plant Physiology, summer 1979
Iowa State University:
Technician, Botany, summer 1980, 1981
Veterinary Pathology, Electron Microscopy laboratory, summer 1982
Research Assistant, Botany, 1982-1985
Research Associate, Botany, summer 1985
Plant Research Laboratory, Michigan State University:
Visiting Research Associate, Sept. 1985 - April 1987
Department of Organic Chemistry, University of Bristol, U.K.:
Research Associate, July 1987 - July 1990

HONORS AND AWARDS

Faculty Research Enhancement Grant, Sam Houston State University, 1992, $7,500.00
Faculty Research Enhancement Grant, Sam Houston State University, 1993, $7,500.00
Faculty Research Enhancement Grant, Sam Houston State University, 1994, $7,500.00
Robert A. Welch Foundation Grant, awarded for 3 years. June 1994-May 1997, $96,000.00
Faculty Research Enhancement Grant, Sam Houston State University, 1997, $5,000.00
Robert A. Welch Foundation Grant, awarded for 3 years. June 1997-May 2000, $110,000.00
Faculty Research Enhancement Grant, Sam Houston State University, 2001, $5,000.00
Fellow of the Texas Academy of Science, 1997

ACTIVITIES

Sam Houston State University:
Department of Biological Sciences Assistant Chair with primary responsibilities of class scheduling and undergraduate advisement: Summer 2007, Fall 2007, Fall 2008 – Spring2010.
Acting Chair of the Department of Biological Sciences First Summer session 1999.
Sponsor for Beta Beta Beta National Biological Honor Society: 1992- 1997, 2004-2008.
Member of Department of Biological Sciences Curriculum Committee: 1991-1995, 1999-2002, 2009-present.
Chair of Department of Biological Sciences Graduate Review Committee and Graduate Advisor: 1995-2002.
Undergraduate Advisor in Department of Biological Sciences: 1991- present..
Member of Department of Biological Sciences Five Year Planning Committee: 1994-1995.
Member of Department of Biological Sciences 2020 Long Range Planning Committee: 2007-2008.
Member of Department of Biological Sciences Student Research Award Committee (now Joey Harrison Student Research Award): 2000-2007.
Member of Department of Biological Sciences Scholarship Committee: 2002-2003, 2007-2008.
Chair and member of several Department of Biological Sciences faculty search committees.
Organized Department of Biological Sciences Annual Homecoming at Dr. Long's home 1991-

2008.
Helped Organize Department of Biological Sciences Spring Recognition Ceremony 2003, 2004, 2006, 2008, 2009
Chair of Department of Biological Sciences MFAT Committee: 2006, 2007.
Member of Department of Biological Sciences BIO 244 Lab Exercises Committee: 2006, 2007.
Supervision of undergraduate and graduate research projects.
Member of College of Arts and Sciences Honors Convocation Committee: 1992-1996.
Member of Faculty Research Council: 1993-1996.
Member of Excellence in Teaching Committee: 1994-1995, 1999-2001, 2008-2011.
Member of Faculty Senate: 1996-2007.
Member of SHSU Institutional Animal Care and Use Committee: 1998-2002, vice-chair 2002 to 2010.
Member of Professional Concerns Committee, College of Education: 2002-2007.
Member of Student Service Fee Committee: 2007-2010.
Member of University Calendar Committee: 2008-present
Member of University American Democracy Project Committee: 2009-2010
Mentor for Christina Chopin with Mentor Program, 2004-2005; Francasca Austin 2005-2006.
Member of Protection of Human Subjects Committee: 2006-2009.
Member of Committee to revise Arts and Sciences Handbook for General Studies Students 1994-95.
Organized and presented information about plants to preschool, elementary, intermediate and junior high students both in the Biology Dept and at their schools: 1992-present.
Science Fair judge: 1992-present
Contest Director for Science, UIL Region III AAAA: Spring 1995 to present.
Participant: Texas Enhancement of Science Teaching workshop (1 week, summer 1992, SHSU) and involved in preparing Biology needs assessment for teaching thematic science survey to be sent to 7th and 8th grade teachers in Texas.
Attended the Across-the-University Writing Program Retreat, Waterwood National Resort and Country Club, November 13-14, 1992.
Participant: Science Teacher Enhancement Project - involved preparing Science teachers for teaching Integrated Science I at the middle school level, 1993-94.
Participant: Mance Park Junior High 3rd Annual SMART (Science, Math, and Related Technology) Enrichment Day: April 1994, April 1995, April 1996.
Participant: Huntsville Intermediate School Enrichment Day: May 2009, March 2010.
Attended Annual Southeast Texas TUEBS (Texas Committee on Undergraduate Education in the Biological Sciences) Conference, November 1994, Sam Houston State University; November 1995, Alvin Community College; November 1999, Sam Houston State University.
Attended workshop titled "Preparing the next generation of Biology teachers" at the Botanical Society of America Annual meeting in San Diego, one day workshop, 1996.
Participant: Piney Woods Institute for Teacher Development through Ecology, 1996-1997, Instruction to elementary and secondary teachers in summer, part of Eisenhower Grant funded to faculty in Education.
Participant: Biology Advisor for MSSELL grant from NSF to Beverly Irby in College of Education. 2008-present. Prepared five powerpoint narrated lectures concerning stems, roots, leaves, cell structure and cell classification. Participant at Science Saturday at SAM for 75-100 Aldine 5th graders in Fall 2009, Spring 2010, Fall 2010 and Spring 2011.

Lectured and prepared laboratory exercises (3 afternoons) about genetics and protein synthesis to elementary/intermediate teachers in program funded by Eisenhower Grant to Kim Arp and Robin McGrew-Zoubi (Education), June 2000.

Educational Outreach - Gibbs Elementary preK-4th grade students, established and continue to maintain educational garden for instruction about gardening, plants, animals, ecology, environment and nutrition, informal volunteer Fall 1999 –Spring 2004. Weekly volunteer one afternoon per week, Fall 2004 to Spring 2008.

Educational Outreach – Gibbs PreK Center - preK students, continue to maintain educational garden for instruction about gardening, plants, animals, ecology, environment and nutrition students Fall 2008- present.

Presentation to Walker County Master Gardeners class concerning General Botany, Feb. 2008, Jan. 2009, Jan. 2010, Jan. 2011.

Thesis advisor to Kimberly Petriella (graduated Dec. 1996) and Tracy Willis (graduated May 2002).

Graduate advisor to Angela McMillan, nonthesis MA student.

PROFESSIONAL AFFILIATIONS

American Fern Society – coeditor of the Fiddlehead Forum, newsletter of the AFS, June 2007 to present. Correspond with contributors, assemble newsletter, oversee final draft, printing and mailing. Reviewer of manuscripts for the American Fern Journal.

Beta Beta Beta - faculty advisor and attended regional convention at Lake Texoma April 1994, 1995, 1996, 1997, 1998, 1999, 2000, 2006, 2007 and 2008. SHSU chapter hosted regional convention in 2007. Attended Beta Beta Beta National Convention, May 1996, Erie, PA with two students presenting papers.

Texas Academy of Science: Attended annual meeting 1995, 1996, 1997, 1998, 1999, 2000, 2001, 2003, 2004, 2006, 2007, 2010 and 2011. Chair and Vice Chair for Botany section for several years, Elected Fellow 1997.

Botanical Society of America – 2006, Reviewer of student travel awards for the Pteridological Section of the Botanical Society of America, for undergraduate and graduate students to attend the annual meeting. Member of Planting Science Steering Committee.

American Society of Plant Biologists

British Pteridological Society

International Association of Pteridologists

Phi Kappa Phi Honor Society

Sigma Xi

Gamma Sigma Delta

Iota Sigma Pi, National Honor Society for Women in Chemistry

Sigma Delta Epsilon, Graduate Women in Science

PUBLICATIONS

1. Nester, J.E. and M.D. Schedlbauer. 1981. Gametophyte development in *Anemia mexicana* Klotzsch. *Bot. Gaz*. 142: 242-250.

2. Nester, J.E. and M.D. Schedlbauer. 1982. Antheridiogen activity of *Anemia mexicana*. *Can. J. Bot*. 60: 1606-1610.

3. Nester, J.E. 1985. Scanning electron microscopy of antheridia and archegonia of *Anemia mexicana* Klotzsch. *Amer. J. Bot*. 72: 777-780.
Scanning electron micrographs from this publication have been used in two text books and one lab manual.
4. Nester, J.E. 1985. Spore germination and early gametophyte development in *Anemia mexicana* Klotzsch. *Bot. Gaz*. 146: 510-516.
5. Nester, J.E. and R.C. Coolbaugh. 1986. Factors influencing spore germination and early gametophyte development in *Anemia mexicana* and *Anemia phyllitidis*. *Plant Physiol.* 82: 230-235.
6. Nester, J.E., S. Veysey, and R.C. Coolbaugh. 1987. Partial characterization of the antheridiogen of *Anemia mexicana* Klotzsch: Comparison with the antheridiogen of *Anemia phyllitidis*. *Planta*, 170: 26-33.
7. Nester, J.E. and J.A.D. Zeevaart. 1988. Flower development in normal tomato and a gibberellin-deficient (ga-2) mutant. *Amer. J. Bot*. 75: 45-55.
8. Furber, M., L.N. Mander, J.E. Nester, N. Takahashi, and H. Yamane. 1989. Structure of an antheridiogen from the fern *Anemia mexicana*. *Phytochemistry*, 28: 63-66.
9. Nester-Hudson, J.E., F. Semenenko, M.H. Beale, and J. MacMillan. 1990. New monoclonal antibodies to 3β-hydroxy-gibberellins. *Phytochemistry.* 29: 1041-1045.
10. Nester-Hudson, J.E., M.H. Beale, and J. MacMillan. 1992. Large-scale purification and preliminary structural studies of MAC 182, a gibberellin-binding monoclonal antibody. *Phytochemistry.* 31: 3337-3339.
11. Hudson, J.E. 1993. Experimenting with lab writing. Across-the-University Writing Program Newsletter, Sam Houston State University, Huntsville TX.
12. Hudson, J.E., C. Ladas* and A. McClurd*****. 1997. Gametophyte development and antheridiogen activity in *Thelypteris ovata* var. *lindheimeri. American Fern Journal,* 87: 131-142.
13. Hudson, J.E., L. J. Creacy***** and J. L. Palmer*****. 1998. Gibberellin A_{45} and Gibberellin A_{61} from gametophyte culture extracts of *Anemia mexicana. Phytochemistry*, 47:1449-1451.
14. Laboratory manual for Molecular Biology (BIO 480), revised several times from1992 – 2004.
15. Laboratory manual for Plant Morphology (BIO 392), revised several times since 1991.
16. Laboratory manual for Plant Physiology (BIO 362).
17. General Botany Laboratory Manual. 2003, revised 2004. K. R. Stern, E. Levetin, J. Hudson, J. Williams, and L. Rose. McGraw-Hill Primis Custom Publishing, New York. I took two lab manuals, combined them and added some of our own new material. I worked with the desktop publisher at McGraw-Hill Primis and had minimal help from others.
18. Willis, T. and J. E. Nester-Hudson. 2007. Characterization of a *Thelypteris* hybrid from Walker County, Texas. *American Fern Journal*. 96:127-133.

* undergraduate students

PRESENTATIONS (All are oral presentations unless noted)

1. Nester, J.E. 1978. Effect of three soil components on fern growth. University Undergraduate Fellows Symposium, Texas A&M University, College Station, TX.
2. Nester, J.E. 1979. Gametophyte development in *Anemia mexicana* Klotzsch. Botanical Society

of America, Stillwater, OK, Amer. J. Bot. Misc. Ser. Publ. 157: 48.
3. Nester, J.E. 1981. Antheridiogen activity of *Anemia mexicana* Klotzsch. Iowa Academy of Science. Suppl. Proc. Iowa Acad. Sci. 88: 11.
4. Nester, J.E. 1981. Antheridiogen activity of *Anemia mexicana* Klotzsch. Botanical Society of America, Bloomington, IN, Amer. J. Bot. Misc. Ser. Publ. 160: 59.
5. Nester, J.E. 1982. Scanning electron microscopic study of spore germination in the fern *Anemia mexicana* Klotzsch. Iowa Academy of Science. Suppl. Proc. Iowa Acad. Sci. 89: 11.
6. Nester, J.E. 1982. Scanning electron microscopic study of spore germination in the fern *Anemia mexicana* Klotzsch. Botanical Society of America, State College, PA, Amer. J. Bot. Misc. Ser. Publ. 162: 76.
7. Nester, J.E.* and R.C. Coolbaugh. 1983. Comparison of GA_3-induced spore germination in *Anemia mexicana* and *Anemia phyllitidis*. Botanical Society of America, Grand Forks, ND, Amer. J. Bot. 70 part 2:94.
8. Nester, J.E.* and R.C. Coolbaugh. 1984. Gas chromatographic-mass spectrometric evidence for the presence of a gibberellin-like compound from gametophytes of *Anemia mexicana* Klotzsch. Iowa Academy of Science. Suppl. Proc. Iowa Acad. Sci. 91:41.
9. Nester, J.E.* and R.C. Coolbaugh. 1984. Gas chromatographic-mass spectrometric evidence for the presence of a gibberellin-like compound from gametophytes of *Anemia mexicana* Klotzsch. American Society of Plant Physiologists, Midwest Regional Meeting.
10. Nester, J.E.* and R.C. Coolbaugh. 1984. Gas chromatographic-mass spectrometric evidence for the presence of a gibberellin-like compound from gametophytes of *Anemia mexicana* Klotzsch. American Society of Plant Physiologists, Davis, CA, Suppl. Plant. Physiol. 75:92. Poster.
11. Nester, J.E.* and R.C. Coolbaugh. 1985. Partial characterization of an *Anemia mexicana* antheridiogen. U.S./Japan Seminar on Developmental Physiology of the Fern Haplophase, Nikko, Japan.
12. Coolbaugh, R.C.*, L.F. Al-Nimri and J.E. Nester. 1985. Evidence for gibberellins in culture filtrates of *Cercospora rosicola.* 12th International Conference on Plant Growth Substances, Heidelberg, Germany.
13. Nester, J.E. 1986. Quest for an antheridium-inducing factor (antheridiogen) from the fern, *Anemia mexicana*. Michigan State University, East Lansing, MI.
14. Nester, J.E.* and J.A.D. Zeevaart. 1986. Flower development in a GA-deficient mutant of tomato. American Society of Plant Physiologists, Baton Rouge, LA, Suppl. Plant Physiol. 80:3.
15. Nester, J.E. 1988. The sex life of ferns. Botany Department, Bristol University, Bristol, U.K.
16. Nester-Hudson, J.E. 1989. Biology and chemistry of an antheridiogen of the fern *Anemia mexicana*. Society for Experimental Biology. Edinburgh, Scotland.
17. Nester-Hudson*, J.E., M. Beale, R. Sessions, R. Hooley and J. MacMillan. 1990. Investigations towards the structure of the gibberellin binding site in the monoclonal antibody MAC 182. Molecular Recognition Initiative Meeting, Bristol, U.K. Poster.
18. Hudson, J.E. 1991. Molecular recognition of gibberellins by monoclonal antibodies and plant protein receptors. Sam Houston State University, Huntsville, TX.
19. Hudson, J.E. 1992. Purification and characterization of a monoclonal antibody which recognizes a gibberellin plant hormone. Sam Houston State University, Huntsville, TX.
20. Hudson, J.E. 1994. The quest for antheridiogens in ferns. Sigma Xi lecture, Sam Houston State University, Huntsville, TX.
21. Hudson, J.E.N.* and **T.W. Lam**. 1995. Studies of gametophyte growth and obligate apogamy in

Pellaea atropurpurea. Texas Academy of Science, Waco, TX.
22. Hudson, J.E.N.*, **T.W. Lam** and **J. Palmer**. 1995. Partial purification of an antheridiogen from *Pteridium aquilinum*. Texas Acad. of Science, Waco, TX.
23. Nester-Hudson, J.E.* and **T.W. Lam**. 1995. Studies of gametophyte growth and obligate apogamy in *Pellaea atropurpurea*. Botanical Society of America, San Diego, CA. Suppl. Amer. J. Bot. 82:102.
24. Nester-Hudson, J.E.*, **T.W. Lam**, and **J. Palmer**. 1995. Partial purification of an antheridiogen from *Pteridium aquilinum*. Botanical Society of America, San Diego, CA. Suppl. Amer. J. Bot. 82:102.
25. **Creacy, L.J.*** and J. E. Nester-Hudson. 1996. Isolation and purification of antheridiogens from the fern *Anemia mexicana* using high performance liquid chromatography. Texas Academy of Science, Galveston, TX.
26. **Palmer, J.L.*** and J. E. Nester-Hudson. 1996. Isolation and purification of the antheridiogen from the fern *Pteridium aquilinum* using high performance liquid chromatography. Texas Academy of Science, Galveston, TX.
27. Nester-Hudson, J.E.* and **C. Ladas**. 1996. Gametophyte development and antheridiogen activity in *Thelypteris ovata* var. *lindheimeri*. Texas Academy of Science, Galveston, TX.
28. **Creacy, L.J.*** and J.E.N. Hudson. 1996. Isolation and purification of antheridiogens from the fern *Anemia mexicana* using high performance liquid chromatography. Beta Beta Beta National Biological Honor Society Regional Convention, Lake Texoma, OK. **Received 3rd place undergraduate paper award.**
29. **Palmer, J.L.*** and J.E.N. Hudson. 1996. Isolation and purification of the antheridiogen from the fern *Pteridium aquilinum* using high performance liquid chromatography. Beta Beta Beta National Biological Honor Society Regional Convention, Lake Texoma, OK. **Received 1st place undergraduate paper award.**
30. **Creacy, L.J.*** and J.E.N. Hudson. 1996. Isolation and purification of antheridiogens from the fern *Anemia mexicana* using high performance liquid chromatography. Beta Beta Beta National Biological Honor Society National Convention, Erie, PA. **Received 2nd place undergraduate paper award.**
31. **Palmer, J.L.*** and J.E.N. Hudson. 1996. Isolation and purification of the antheridiogen from the fern *Pteridium aquilinum* using high performance liquid chromatography. Beta Beta Beta National Biological Honor Society National Convention, Erie, PA.
32. **Creacy, L.J.** and J. E. Nester-Hudson*, 1996. Isolation and purification of antheridiogens from the fern *Anemia mexicana* using high performance liquid chromatography. Botanical Society of America, Seattle, WA. Suppl. Amer. J. Bot. 83: 124.
33. **Palmer, J.L.** and J. E. Nester-Hudson. 1996. Isolation and purification of the antheridiogen from the fern *Pteridium aquilinum* using high performance liquid chromatography. Botanical Society of America, Seattle, WA. Suppl. Amer. J. Bot. 83: 129.
34. Nester-Hudson, J.E.* and **C. Ladas**. 1996. Gametophyte development and antheridiogen activity in *Thelypteris ovata* var. *lindheimeri*. Botanical Society of America, Seattle, WA. Suppl. Amer. J. Bot. 83:129.
35. Hudson, J.E.N.* and **L.J. Creacy**. 1997. Gibberellins and gibberellin-like compounds isolated from culture media and gametophtyes of the fern *Anemia mexicana*. Texas Academy of Science, Huntsville, TX.
36. **Provost, A**.* and J.E.N. Hudson. 1997. Gametophyte development and reproductive biology in the fern *Thelypteris kunthii*. Texas Academy of Science, Huntsville, TX.

37. **Willis, T.** * and J.E.N. Hudson. 1997. Reproduction of the ferns, *Asplenium platyneuron* and *Thelypteris kunthii* by gametophytes in Walker County, Texas. Texas Academy of Science, Huntsville, TX.
38. **McClurd, A.** * and J.E.N. Hudson. 1997. Partial purification of antheridiogens from the fern *Thelypteris ovata* var. *lindheimeri*. Texas Academy of Science, Huntsville, TX.
39. Petriella, K. * and J.E.N. Hudson. 1997. Experimental studies of gametophyte growth, development and obligate apogamy in *Pellaea atropurpurea* (L.) Link. Texas Academy of Science, Huntsville, TX.
40. **Provost, M. A.*** and J.E.N. Hudson. 1997. Gametophyte development and reproductive biology in the fern *Thelypteris kunthii*. Beta Beta Beta National Biological Honor Society Regional Meeting, Lake Texoma, OK.
41. **McEwen, J. P.*** and J.E.N. Hudson. 1997. Do fern gametophytes synthesize new proteins in response to cold treatment? Beta Beta Beta National Biological Honor Society Regional Meeting, Lake Texoma, OK.
42. **McClurd, A.** * and J.E.N. Hudson.1997. Partial purification of antheridiogens from the fern *Thelypteris ovata* var. *lindheimeri*. Beta Beta Beta National Biological Honor Society Regional Meeting, Lake Texoma, OK.
43. Hudson, J.E.N. 1997. Antheridiogens in Ferns, Sam Houston State University.
44. J.E. Nester-Hudson* and **L.J. Creacy**. 1997. Gibberellins and gibberellin-like compounds isolated from culture media and gametophtyes of *Anemia mexicana*. Botanical Society of America, Montreal, Canada. Suppl. Amer. J. Bot. 84:165.
45. **Willis, T.** and J.E. Nester-Hudson*. 1997. Reproduction of *Asplenium platyneuron* by gametophytes in Walker County, Texas. Botanical Society of America, Montreal, Canada. Suppl. Amer. J. Bot. 84: 169.
46. **Babik, H.*** and J.E.N. Hudson. 1998. Gametophyte development and antheridiogen sensitivity in *Woodsia obtusa*. Texas Academy of Science, Tyler, TX.
47. **Provost, A.*** and J.E.N. Hudson. 1998. Reproductive biology and partial purification of an antheridiogen from the fern *Thelypteris kunthii*. Texas Academy of Science, Tyler, TX.
48. **McEwen, J. P.*** and J. E. N. Hudson. 1998. Possible antheridiogens isolated from culture media and gametophytes of the fern *Pteridium aquilinum.* Texas Academy of Science, Tyler, TX.
49. **McClurd, A.*** and J.E.N. Hudson. 1998. Purification of an antheridiogen from the fern *Thelypteris ovata* var. *lindheimeri* using ion exchange chromatography. Texas Academy of Science, Tyler, TX.
50. **Davis, N.** and J.E.N. Hudson*. 1998. Gametophyte development and antheridiogen sensitivity in *Asplenium platyneuron*. Texas Academy of Science, Tyler, TX.
51. **McCoy, Y.** and J.E.N. Hudson. 1998. Biological activity and partial purification of an antheridiogen from the fern *Onoclea sensibilis*. Texas Academy of Science, Tyler, TX.
52. **Babik, H.*** and J.E.N. Hudson. 1998. Gametophyte development and antheridiogen sensitivity in *Woodsia obtusa.* Beta Beta Beta National Biological Honor Society Regional Meeting, Lake Texoma, OK.
53. **McEwen, J.P.*** and J.E.N. Hudson. 1998. Possible antheridiogens isolated from culture media and gametophytes of the fern *Pteridium aquilinum.* Beta Beta Beta National Biological Honor Society Regional Meeting, Lake Texoma, OK.
54. **McClurd, A**.* and J.E.N. Hudson. 1998. Purification of an antheridiogen from the fern *Thelypteris ovata* var. *lindheimeri* using ion exchange chromatography. Beta Beta Beta National

Biological Honor Society Regional Meeting, Lake Texoma, OK. **Received 3rd place undergraduate paper award.**

55. **McCoy, Y.*** and J.E.N. Hudson. 1998. Biological activity and partial purification of an antheridiogen from the fern *Onoclea sensibili*s. Beta Beta Beta National Biological Honor Society Regional Meeting, Lake Texoma, OK.

56. **Babik, H.*** and J.E.N. Hudson. 1999. Purification of antheridiogens from the fern *Thelypteris kunthii* using ion-exchange chromatography. Texas Academy of Science, Seguin, TX.

57 .**Wyche, R.*** and J.E.N. Hudson. 1999. Gametophyte development in *Woodwardia areolata*. Texas Academy of Science, Seguin, TX.

58. **Frederickson, S.*** and J.E.N. Hudson. 1999. Partial purification of an antheridiogen from *Onoclea sensibilis* using ion-exchange chromatography. Texas Academy of Science, Seguin, TX. **Received 3rd place undergraduate paper award.**

59. **McClurd, A**.* and J.E.N. Hudson, 1999. Purification of antheridiogens from the fern *Thelypteris ovata* var. *lindheimeri* using high performance liquid chromatography. Texas Academy of Science, Seguin, TX. **Received 2nd place undergraduate paper award.**

60. **Davis, N**.* and J.E.N. Hudson. 1999. Purification of suspected gibberellin isomers from culture media and gametophytes of the fern *Anemia mexicana*, Texas Academy of Science, Seguin, TX.

61. **Bosworth, S.*** and J.E.N. Hudson. 1999. Partial purification of an antheridiogen from the fern *Asplenium platyneuron*, Texas Academy of Science, Seguin, TX.

62. Hudson, J.E.N. 1999. *Pteridium aquilinum* antheridiogens: Can a structure be determined by the year 2000?, Texas Academy of Science, Seguin, TX.

63. **Babik, H.*** and J.E.N. Hudson. 1999. Purification of antheridiogens from the fern *Thelypteris kunthii* using ion-exchange chromatography. Beta Beta Beta National Biological Honor Society Regional Meeting, Lake Texoma, OK. **Received 3rd place undergraduate paper award.**

64. **Frederickson, S.*** and J.E.N. Hudson. 1999. Purification of an antheridiogen from *Onoclea sensibilis* using ion-exchange chromatography. Beta Beta Beta National Biological Honor Society Regional Meeting, Lake Texoma, OK.

65. **McClurd, A.*** and J.E.N. Hudson. 1999. Purification of antheridiogens from the fern *Thelypteris ovata* var. *lindheimeri* using high performance liquid chromatography. Beta Beta Beta National Biological Honor Society Regional Meeting, Lake Texoma, OK. **Received 3rd place undergraduate paper award.**

66. **Babik, H**. and J.E.N. Hudson*. 2000. Purification of antheridiogens from the fern *Thelypteris kunthii* using high performance liquid chromatography. Texas Academy of Science, Kingsville, TX.

67. **Wyche, R**.* and J.E.N. Hudson. 2000. Partial purification of an antheridiogen from the fern *Woodwardia areolata.* Texas Academy of Science, Kingsville, TX.

68. **Karim, T.*** and J.E.N. Hudson. 2000. Antheridiogens from the fern *Asplenium platyneuron* using high performance liquid chromatography. Texas Academy of Science, Kingsville, TX. **Received undergraduate paper Honorable Mention Award.**

69. **Karim, T.*** and J.E.N. Hudson. 2000. Purification of antheridiogens from the fern *Asplenium platyneuron* using high performance liquid chromatography. Beta Beta Beta National Biological Honor Society Regional Meeting, Lake Texoma, OK.

70. **Frederickson, S.*** and J.E.N. Hudson. 2000. Purification of antheridiogens from *Onoclea sensibilis* using high performance liquid chromatography. Beta Beta Beta National Biological Honor Society Regional Meeting, Lake Texoma, OK.

71. **Brain, M.** and J.E.N. Hudson. 2000. Purification of *Thelypteris ovata* sex determining

antheridiogens. Beta Beta Beta National Biological Honor Society Regional Meeting, Lake Texoma, OK. **Received 1st place undergraduate paper award.**
72. **Prouty, A.*, Miller, R.** and J.E.N. Hudson. 2000. Use of mass spectrometry to chemically characterize unknown gibberellins from the fern *Anemia mexicana*. Beta Beta Beta National Biological Honor Society Regional Meeting, Lake Texoma, OK. **Received 3rd place undergraduate paper award.**
73. **Karim, T.*** and J.E.N. Hudson. 2000 Purification of antheridiogens from the fern *Asplenium platyneuron* using high performance liquid chromatography. Beta Beta Beta National Biological Honor Society National Meeting, Puerto Rico.
74. **Brain, M. *** and J.E.N. Hudson. 2000. Purification of sex determining antheridiogens from *Thelypteris ovata*. Beta Beta Beta National Biological Honor Society National Meeting, Puerto Rico.
75. **Prouty, A.M. *, R. Miller** and J.E.N. Hudson. 2000. Use of Mass Spectrometry to Chemically Characterize Unknown Gibberellins from the fern *Anemia mexicana.* Beta Beta Beta National Biological Honor Society National Meeting, Puerto Rico.
76. **Wyche, R**. and J.E.N. Hudson. 2000. Partial purification of an antheridiogen from the fern *Woodwardia areolata.* Undergraduate Research Symposium, SHSU, August, Poster.
77. **Karim, T**. and J.E.N. Hudson. 2000. Purification of antheridiogens from the fern *Asplenium platyneuron* using high performance liquid chromatography. Undergraduate Research Symposium, SHSU, August, Poster.
78. **Frederickson, S.** and J.E.N. Hudson. 2000. Purification of antheridiogens from *Onoclea sensibilis* using high performance liquid chromatography. Undergraduate Research Symposium, SHSU, August, Poster.
79. **Brain, M**. and J.E.N. Hudson. 2000. Purification of sex determining antheridiogens from *Thelypteris ovata*. Undergraduate Research Symposium, SHSU, August, Poster.
80. **Prouty, A.M., R. Miller** and J.E.N. Hudson.2000. Use of Mass Spectrometry to Chemically Characterize Unknown Gibberellins from the fern *Anemia mexicana.* Undergraduate Research Symposium, SHSU, August, Poster.
81. **Babik, H**. and J.E.N. Hudson. 2000. Purification of antheridiogens from the fern *Thelypteris kunthii* using high performance liquid chromatography. Undergraduate Research Symposium, SHSU, August, Poster
82. Hudson, J.E.N. 2001. Mass spectrometric characterization of gibberellins and gibberellin-like compounds from gametophytes of the fern *Anemia mexicana*. Texas Academy of Science, San Marcos, TX.
83. **Briggs, K.** and J.E.N. Hudson. 2003. Chromatographic purification of antheridiogens and gibberellins from the fern, *Anemia mexicana*. Texas Academy of Science, Nacogdoches, TX.
84. J.E.N. Hudson. 2003. Chemical analysis of gibberellins and gibberellin-like comopunds from *Anemia mexicana*. Texas Academy of Science, Nacogdoches, TX.
85. T. Willis and J.E.N. Hudson*. 2004. Characterization of a *Thelypteris* hybrid from Walker County, Texas. Texas Academy of Science, Kerrville, TX.
86. J. Nester-Hudson. 2005. Chemical analysis of gibberellin-like compounds from gametophyte culture media extract of *Anemia mexicana*. Botanical Society of America Annual meeting, Austin, TX.
87. T. Willis and J. Nester-Hudson*. 2005. Characterization of a *Thelypteris* hybrid from Walker County, Texas. Botanical Society of America Annual meeting, Austin, TX.

88. J. E. N. Hudson. 2006. Antheridiogen systems in ferns of Walker County, Texas. Texas Academy of Science, Beaumont, TX.
89. J. E. N. Hudson. 2007. Pteridophyte reproduction by spores/gametophytes at the Center for Biological Field Studies, Sam Houston State University, Huntsville, Texas. Texas Academy of Science, Waco, Texas.
90. **C. Wise*** and J. E. N. Hudson. 2007. Using high performance liquid chromatography to identify gibberellin and gibberellin-like compounds from *Anemia mexicana* gametophyte culture media. Texas Academy of Science, Waco, Texas. **Received 1st place undergraduate paper award.**
91. **C. Wise*** and J. E. N. Hudson. 2007. Using high performance liquid chromatography to identify gibberellin and gibberellin-like compounds from *Anemia mexicana* gametophyte culture media. Beta Beta Beta National Biological Honor Society Regional Meeting, Lake Texoma, OK.
92. **L. Fisher*** and J. E. N. Hudson. 2007. Purification of antheridiogens from *Thelypteris kunthii* culture media extracts. Beta Beta Beta National Biological Honor Society Regional Meeting, Lake Texoma, OK. Poster.
93. J. E. N. Hudson. 2010. Fern spore viability in *Anemia mexicana*. Texas Academy of Science, Stephenville, Texas.
94. J. E. N. Hudson* and **Emily Amenta**. 2011. Gametophyte development in *Anemia mexicana* from spores of different ages. Texas Academy of Science, Austin, Texas.

Authors in bold print are undergraduate students
*** indicates presenter**

Undergraduate and other student research projects
Summer 1992: **Catherine Eaves** worked on a project involving purification of antheridiogens from *Anemia mexicana* and *Pteridium aquilinum*.
Fall 1994: **Lebanon Driggers** worked on a project which involved embedding of fern gametophytes of *Pellaea atropurpurea* in paraffin and sectioning the gametophytes for microscopic observations. This project continued into the spring semester.
Genie Nutt began a study of gametophyte development in *Thelypteris ovata* var. *lindheimeri*.
Spring 1995: Virginia Appleman worked on her own research project which involved embedding small wildflowers in paraffin and subsequent sectioning and staining of slides for teaching use.
Summer 1995: **Carol Ladas** worked on a BIO 495, Special Topics research project involving gametophyte development in *Thelypteris ovata* var. *lindheimeri*.
Spring 1996: One high school student, Gene Addison, worked on a research project involving exposing *Anemia mexicana* gametophytes to varying periods of UV light and at different gametophyte developmental stages. This research project was part of the requirements for his Independent Research Class.
Summer 1996: **Jill Beilowitz** worked on a BIO 495, Special Topics research project involving the influence of spore germination and gametophyte growth on reproductive morphology in *Thelypteris ovata var. lindheimeri*.
Aaron Rainey worked on a BIO 495, Special Topics research project involving antheridiogen activity in *Thelypteris ovata* var. *lindheimeri* and gametophyte development in *Thelypteris kunthii.*
Adrianne Mahlmann worked on a BIO 495, Special Topics research project involving antheridiogen activity and purification in *Onoclea sensibilis.*

Fall 1996: **Jennifer Palmer** worked on an ESC 495 Special Topics research project which involved the biosynthesis of antheriogens and biological activity of several gibberellins in *Anemia mexicana.*
Spring 1997: **Jonathan McEwen** worked on a project involving protein isolation from fern gametophytes after gametophytes were exposed to cold stress.
Spring 1998: **Matthew Caldwell** worked on BIO 495, Special Topics research project involving gametophyte growth and development *in Phlebodium aureum*.
Summer 2000: **Anne-Marie Prouty, Nicole Saul,** and **Aimee Wooster** worked on BIO 495, Special Topics research projects involving purification of antheridiogens from *Anemia mexicana* and their chemical characterization with mass spectrometry.
Fall 2000: **Emily Keathly, Dexter Guice** and **Kim Moore** worked on BIO 495, Special Topics research projects involving purification of antheridiogens from *Anemia mexicana*, their chemical characterization with mass spectrometry and biological activity.
Fall 2001: **Alison Rice** and **Kelly Lonsford** worked on BIO 495, Special Topics research projects involving experimental studies of gametophyte development and obligate apogamy in *Pellaea atropurpurea.*
Summer 2003: **Chastidy Hammond** worked on BIO 495 research project involving gametophyte development and obligate apogamy in *Pellaea atropurpurea.*
Summer 2005: **Sabrina Wale** and **Countney Kimmey** worked on BIO 495, Special Topics project involving building a trail with 18 stations at the Center for Biological Field Station.
Fall 2006: Honors Contract with **Alison McCollough** in BIO 161, Digital tour of the J.D. Long Woodland Trail at the CBFS.
Spring 2007: **Candace Wise** worked on a BIO 495 project involving identification of gibberellin and gibberellin-like compounds from *Anemia mexicana* gametophyte culture media extracts using HPLC. **Laura Fisher** worked on a BIO 495 project involving purification of antheridiogens from *Thelypteris kunthii* culture media extracts.
Honors Contract with **Shalane Powell** in BIO 234, The biology of brain tumors. Honors Contract with **Rebecca Montes** in BIO 234, Genetic disorders in humans.
Summer 2007: **Jessica Jemison** worked on a BIO 595 project involving spore production by pteridophytes at the Center for Biological Field Studies.
Fall 2007: **Cole Anderson** volunteered in the lab with project concerning gametophyte development in *Thelypteris kunthii*.
Spring 2008: **Cole Anderson** and **Morgan Collum** volunteered in the lab with a research project concerning gametophyte development in *T. kunthii.*
Fall 2008: **Nelson Sheppard** and **Julie Hinton** completed BIO 244 Honors contracts concerning isolation of antheridogens of *T. kunthii.* **Morgan Collum** continued volunteering in the lab with the isolation of antheridiogens of *T. kunthii.*
Spring 2009: **Morgan Collum** is working on a BIO 495 project which involved isolation and purification of antheridiogens of *T. kunthii*. **Amy Johnson** worked on a BIO 495 project involving spore production by *Woodsia obtusa.*
Summer 2009: **Leslie Demmert** and **Grantlan Goodale** worked on a BIO 495 project involved building an educational trail at the Bearkat Camp and selecting and preparing educational information for these trees. **Clarissa Villa** worked on a BIO 495 project that involved spore production by *Thelypteris kunthii* and *Equisetum laevigatum*. **Casey Hayslip** worked on a BIO 495 project that involved a survey of vascular plants from Burrough's Park in northwest Harris County..
Fall 2009: **Leslie Demmert** worked on a BIO 495 project which involved making a digital

inventory of the herbarium specimens of plant material which are used for educational purposes.
Summer 2010. **Emily Amenta** worked on a BIO 495 project which involved gametophyte development in *Anemia mexicana* from spores of different ages. **Christina Pardue** completed a BIO 495 project which involved making a digital library of plant specimens from the Plant Morphology laboratory.
Fall 2010: **Lisa Henderson** worked on a BIO 495 project that involved spore production in *Asplenium platyneuron* and *Equisetum laevigatum*.
Spring 2011: **Jaclyn Whitson** worked on a BIO 495 research project that involved spore germination and gametophyte development in *Pellaea atropurpurea* from spores of different ages. **Amy Perez**, a McNair Scholar, began working on a research project involving tissue culture of Lupinus texensis.