DOUGLAS FRANK WUNNEBURGER
Instructional Associate Professor
Department of Landscape Architecture & Urban Planning
Texas A&M University, TAMU 3137, College Station, TX 77843-3137
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September 15, 2020

EDUCATION:

Ph.D. Forest Science (Remote Sensing / Geographic Information Systems), December 1992
Texas A&M University, College Station, TX 77843
M.F. Forestry (Photogrammetry) August 1981
Stephen F. Austin State University, Nacogdoches, TX 75962
B.A. Economics (Environmental), May 1977
The University of Texas at Austin, Austin, TX 78740

TEACHING, RESEARCH AND RELATED APPOINTMENTS:

2020 – Present: Instructional Professor, Department of Landscape Architecture and Urban Planning, Texas A&M University
2019 – Present: Bachelor of Science in Urban Planning Program Coordinator, Department of Landscape Architecture and Urban Planning, Texas A&M University
2015 – 2020: Associate Instructional Professor, Department of Landscape Architecture and Urban Planning, Texas A&M University
1998 – Present: Administrator GeoDesign Lab, Department of Landscape Architecture and Urban Planning, Texas A&M University
2007 – 2015: Senior Lecturer, Department of Landscape Architecture and Urban Planning, Texas A&M University
1998 – 2007: Associate Research Scientist and Lecturer, Department of Landscape Architecture and Urban Planning, Texas A&M University
1994 – 1997: Lab Manager, Mapping Sciences Laboratory (now Spatial Sciences Laboratory), Texas A&M University
1988 – 1997: Assistant Research Scientist and Lecturer, Department of Forest Science, Texas A&M University
1987 – 1988: Natural Resources Systems Modeler, National Ecology Research Center, US Fish and Wildlife Service, Fort Collins, CO
1984 – 1987: Graduate Research Assistant, Department of Forest Science, Texas A&M University
1982 – 1984: Forester, USDA – Forest Service, Apple Springs, TX
1982: Forest Technician, USDA – Forest Service, Paonia, CO
1979 – 1981: Graduate Teaching Assistant, College of Forestry, Stephen F. Austin State University
1980: Range Technician / Lead YCC Counselor, USDA – Forest Service, Bonham, TX
1979: Range Technician / YCC Counselor, USDA – Forest Service, Bonham, TX
1978: Interpretive Naturalist, USDA – Forest Service, Aspen, CO

TEACHING

FIELDS QUALIFIED FOR INSTRUCTION:
Geographic Information Systems
Remote Sensing
Landscape Ecology
Special interest in neighborhood effects of disparity in equity. Public education funding and performance impacts on urban and regional planning. Societal impacts of spatially explicit legal statutes. Automation of acquisition and distribution of knowledge through web-based public participation GIS.

COURSES TAUGHT:
Current courses
PLAN 625*, Introduction to GIS for Landscape Architecture and Urban Planning (Blended)
PLAN 625*, Introduction to GIS for Landscape Architecture and Urban Planning (Online)
PLAN 626*, Advanced GIS for Landscape Architecture and Urban Planning (Blended)
URPN 325*, Introduction to GIS for Landscape Architecture and Urban Planning (Blended)
URPN 325*, Introduction to GIS for Landscape Architecture and Urban Planning (Online)
URPN 326*, Advanced GIS for Landscape Architecture and Urban Planning (Blended)
Previous courses
ENTO 325, Landscape Ecology (1997 – 2001)
FRSC 652*, Advanced GIS for Resource Managers (1996 – 1997)
FRSC 651, Introduction to GIS for Resource Managers (1989 – 1997)
**Courses which I proposed, established, and initially taught*

STUDENT COMMITTEES:

PhD Level Committees				
NAME	DEGREE SOUGHT	MAJOR	COMMITTEE	GRADUATION DATE
Alexander Aduabara	PHD	URSC	Member	(2020)
Maria P. Perez Arguelles	PHD	URSC	Member	2019
Chi Ying Huang	PHD	URSC	Member	(2020)
Hung-Lung Wei	PHD	URSC	Member	2016
Kyunghee Lee	PHD	RPTS	Member	2013
Hwan Yong Kim	PHD	URSC	Member	2013
Junping Xu	PHD	URSC	Member	2013
Hao-Che Wu	PHD	URSC	Member	2013

Xiaoyan Huang	PHD	URSC	Member	2013
Afia Rehan Saeed	PHD	URSC	Member	2012
Afia Rehan Saeed	PHD	URSC	Member	2012
Hwanyong Kim	PHD	URSC	Member	2011
Xiaoyan Huang	PHD	URSC	Member	2011
Anna Iwinska-Nowak	PHD	SOCI	Member	2010
Trinidad Morales	PHD	SOCI	Member	2010
Carlos Siordia	PHD	SOCI	Member	2010
Rachael Traut Cortez	PHD	SOCI	Member	2010
Joung Im Park	PhD	URSC	Member	2010
Christine Russell	PhD	SOCI	Member	2010
Kevin Lipnicki	PhD	CVEN	Member	2008
Jun Hyun Kim	PhD	URSC	Member	2007
Farouk Daghistani	PhD	URSC	Member	2007
Thomas Meyer	PhD	FRSC	Member	2006
JinKi Kim	PhD	URSC	Member	2005
Atiye Okay	PhD	RELM	Member	2005
Jamie Rae Walker	PhD	RPTS	Member	2005
Buren DeFee II	PhD	URSC	Member	2005
Chun-Man Cho	PhD	URSC	Member	2005
Sang Woo Lee	PhD	URSC	Member	2005
Miriam Olivares	PhD	URSC	Co-Chair	
Rima Al Ajlouni	PhD	ARCH	Member	2002
Jeremy Stone	PhD	URSC	Chair	2002
Michael Rehm	PhD	URSC	Member	2002
Olga Filippova	PhD	URSC	Member	2002
Eric Taylor	PhD	FRSC	Member	1998
Yang Zhang	PhD	URSC	Member	1997
Peter Siska	PhD	FRSC	Member	1995
Ramesh Sivanpilai	PhD	FRSC	Member	1995
Robert Argent	PhD	FRSC	Member	1995

Masters Level Committees				
NAME	DEGREE SOUGHT	MAJOR	COMMITTEE	GRADUATION DATE
Ayman Messfer	MUP	PLAN	Co-Chair	(2020)
Cynthia Nolasco	MUP	PLAN	Member	(2020)
Mohammad Javad Biazar*	MUP	PLAN	Co-Chair	2019
Soheil Sameti	MUP	PLAN	Member	2019
Maria I. Martinez	MUP	PLAN	Member	2019
Nan Wang	MUP	PLAN	Member	2019
Brooks Van Essen	MAR	ARCH	Member	2018
Han Liu	MUP	PLAN	Co-Chair	2018
Jeongseup Lee†	MUP	PLAN	Co-Chair	2018
Ryan Lawrence	MAR	ARCH	Member	2017
Salem I. Aljoaib	MUP	PLAN	Member	2016
Tyree Finley‡	MUP	PLAN	Co-Chair	2016
Rachel Prelog	MUP	PLAN	Member	2016
Tiffany Cousins	MUP	PLAN	Member	2016
Atrin Khodadadi Fard	MUP	PLAN	Member	2016
Andrew Wallick	MUP	PLAN	Member	2015
Andrea Boero	MUP	PLAN	Member	2015
Yangming Shi	MS	COMG	Member	2014
Darshan Padmanabha	MS	CVEN	Member	2014
Chang Ho Hur	MUP	PLAN	Member	2014
Nair A. Barrios Perez	MUP	PLAN	Member	2013
Tao-I Tang	MUP	PLAN	Member	2013
Koly Sengupta	MUP	PLAN	Member	2013
Kunjan Chaitanya Majmudar	MS	COMG	Member	2012
Srigiri Shankar Bellam	MS	COMG	Member	2012
Nicholas Glenn Turner	MS	RPTS	Member	2012
Andrew C. Sauls	MUP	PLAN	Member	2012

* Mohammad Javad Biazar – Developed Texas Freedom Colonies Atlas for Master of Urban Planning degree project, recognized by national media. Co-chaired with Dr. Andrea Roberts.

† Jeongseup Lee – 2019 Best Paper award by American Academy for Park and Recreation Administration for master's thesis. Co-chaired with Dr. Dongying Li.

‡ Tyree Finley – Featured in Texas Monthly for efforts in gathering resources and conducting rescues in the Cypress Creek area of Houston during and after Hurricane Harvey.

Karen Gauss	MUP	PLAN	Member	2012
Sun Mi Jin	MUP	PLAN	Member	2012
Pushkin Jogunoori	MS	COMG	Member	2011
Joseph Franklin Boyd	MS	COMG	Member	2011
Steven Patrick Cooksey	MS	RPTS	Member	2011
Jonathan Bryce Farmer	MS	RPTS	Member	2011
Joseph Franklin Boyd	MS	COMG	Member	2011
Jonathan Bryce Farmer	MS	RPTS	Member	2011
Kunjan Chaitanya Majmudar	MS	COMG	Member	2010
Nicholas Glenn Turner	MS	RPTS	Member	2010
Martin Eugene Siwek	MUP	PLAN	Member	2010
Ray Sabella	MAg	FRSC	Member	2008
Judd Gilchrist	MS	RPTS	Member	2008
Steven Patrick Cooksey	MS	RPTS	Member	2008
Jun Huang	MUP	PLAN	Member	2008
Pushkin Jogunoori	MS	COMG	Member	2007
Azza H. Al Zaabei	MS	ARCH	Member	2006
Liyuan Tung	MS	RLEM	Member	2006
Gerry Logan	MS	RPTS	Member	2005
Rajat Parashar	MUP	PLAN	Member	2002
Sudhish Verma	MUP	PLAN	Member	2002
Yi Zi Lin	MUP	PLAN	Member	2002
Aiju Men	MS	STAT	Member	2000
Tim Andruss	MAg	FRSC	Member	1999
Andrew Shaw	MS	FRSC	Member	1999
Ginny O'Fiel	MAg	FRSC	Member	1998
Ujari Soparia	MUP	PLAN	Member	1998
Jennifer Winn	MS	FRSC	Member	1997
Eileen Murphy	MAg	FRSC	Member	1996
Tammy Lui	MLA	LAND	Member	1996
Genevieve Roth	MS	FRSC	Member	1996
Michelle Simms	MAg	FRSC	Member	1995
Joao Acevedo	MS	FRSC	Co-Chair	1995
Nathalie Castiaux	MS	FRSC	Member	1995
Hong Wen Chen	MS	RLEM	Member	1995
Judd Gilpin	MEng.	CVEN	Member	1994
Stacey Van Stipdonk	MAg	RLEM	Member	1993

TEACHING GRANTS:

1. *Improving Student Outcomes in Undergraduate Planning Through the Academic Innovation Grant Program*
   Principal Investigator
   Sponsor: TAMU Instructional Technology Services
   Amount: $10,000
   Duration: 2018-2019 (12 mo.)
   Objective: Develop an online textbook for teaching URPN 325/326. Appropriate instructional technology should complement the primary instructional goals of URPN 325 and 326: teaching spatial thinking and applying spatial data and software solutions. By incorporating active learning techniques, it is hoped that students' interest will be captured quickly, motivating them toward positive retention and learning outcomes. Of major practical interest, course presentation should benefit from sound integration of teaching, evaluation and reinforcement of theoretical concepts and software processes.
2. *Improving student outcomes in undergraduate planning through the Innovative Pedagogy Grant Program*
   Principal Investigator
   Sponsor: TAMU Instructional Technology Services
   Amount: $10,000
   Duration: 2017-2018 (12 mo.)
   Objective: Apply evidence based practices in teaching and learning to improve student comprehension, competency, and passing rates in URPN 325 for both face to face and online sections. Improve course integration and alignment of teaching, evaluation and reinforcement of theoretical concepts and software processes.
3. *Understanding organizational and technological capabilities in public and private planning agencies in Texas for applications of GIS/PSS to practice and decision making*
   Co-PI with S.D. Brody, C.D. Ellis, M.K. Lindell, W.G. Peacock, M.Zhang
   Sponsor: College Research Council, College of Architecture, TAMU
   Amount: $7,500
   Duration: 2004 (9 mo.)
   Objectives: Study limitations in Texas in application of current science and technology toward urban planning and management problems. Understand organizational capacities of public and private planning agencies in Texas with respect to the application and implementation of GIS/PSS for spatial decision-making on various urban issues; identify technological (hardware, software, and information management) capabilities of the agencies; develop educational programs based in the Department of Landscape Architecture and Urban Planning, Texas A&M that help overcome the limitations and improve planning decision making in the Texas agencies.

4. *Integrating Collaborative Technology Resources for Instruction in Landscape Architecture and Urban Planning*
   Co-PI with D.L. Pugh, M.D. Murphy, M.C. Neuman, J.G. Baker
   Sponsor: TAMU Associate Provost for Information Technology, Computer Access Fee Grant
   Amount: $34,344
   Duration: 2003-2004 (1 yr.)
   Objective: Acquire interactive video display tools that promote collaborative work among the students in the College of Architecture. Provide equipment intended for direct use by the students in a cross section of studios and classes taught in LAUP. Integrate multi-media capabilities in classroom to provide venue for presentation and critical review.
5. *Integrating Collaborative Technology Resources for Instruction in the College of Architecture*
   Co-PI with J.G. Baker, J.R. Naderi, G.Vasquez, M. Clayton, D.L. Pugh, M.D. Murphy
   Sponsor: TAMU Associate Provost for Information Technology, Classroom Instructional Technology Grant
   Amount: $28,584
   Duration: 2002-2003 (1 yr.)
   Objective: Provide interactive video display tools to promote collaborative work among College of Architecture students. Integrate hardware/software resources into College instructional programs.
6. *Chairs for Open Access Computers in the Third Floor Studios*
   Principal Investigator
   Sponsor: CARC IEEF Competitive Grants
   Amount: $10,800
   Duration: 2002
   Objective: requests funds to purchase 24 new chairs under the IEEF Competitive Grant program to provide seating adequate for computer operation
7. *Developing Resources for Surveying and GPS Instruction in Landscape Architecture and Urban Planning*
   Co-PI with C.D. Ellis, J. Baker
   Sponsor: TAMU Associate Provost for Information Technology, Computer Access Fee Grant
   Amount: $33,568
   Duration: 2001 (1 yr.)
   Objective: Provide field data-gathering equipment designed to produce accurate, high-resolution digital base maps for design and planning purposes. Satisfy needs for collecting absolute (GPS) and relative (Total Station) location data for classroom and studio instruction.

8. *Developing Scanning Resources for Instruction in the College of Architecture*
   Co-PI with M.C. Neuman, J.G. Baker
   Sponsor: TAMU Associate Provost for Information Technology, Computer Access Fee Grant
   Amount: $9,000
   Duration: 2000 (1 yr.)
   Objective: Provide pre-press scanning capability for student access in the Geoinformatics Studio. Satisfy needs for very high resolution, medium format reproduction for presentation in public forums and arenas; provide mid-size flat bed scanning for bound materials and other uses; and provide transparency scanning capability digitizing high-quality photographs.
9. *Improving Computing Resources for Instruction in Landscape Architecture and Urban Planning*
   Co-PI with C.D. Ellis, J. Baker
   Sponsor: TAMU Associate Provost for Information Technology, Computer Access Fee Grant
   Amount: $30,400
   Duration: 1999 (1 yr.)
   Objective: Develop a prototype GIS instruction facility by enhancing computerized teaching lab configuration. Integrate equipment to put all monitors in the classroom under the instructors control to enable selection of system projected on electronic white board. Improve system output and visualization tools.
10. *Developing a Center of Excellence in the Mapping Sciences*
    Co-PI with R. C. Maggio; With Administrator: G. D. Liccioni; Co-workers: C. R. Bassham, J. H. Culver and D. G. Wright
    Sponsor: Intergraph Corporation, Trimble Navigation, TAES
    Amount: $2,815,000
    Duration: Five years
    Objective: Create a national center of excellence in the mapping sciences for teaching, research and outreach. Proposal accepted as first of five national centers, sponsored by Intergraph Corp.

RESEARCH

REFEREED JOURNAL ARTICLES:

1. Kim, HY, Wunneburger, D., Neuman, M., and An, SY. (2014). Optimizing High-Speed Rail Routes using a Spatial Decision Support System (SDSS): The Texas Urban Triangle (TUT) Case. *Journal of Transport Geography*, 34, 194-201. doi: 10.1016/j.jtrangeo.2013.11.014.
2. Kim, HY, Wunneburger, D., and Neuman, M. (2013). High-Speed Rail Route and Regional Mobility with a Raster-Based Decision Support System: The Texas Urban Triangle Case. *Journal of Geographic Information System,* 5(6), 559-566. doi: 10.4236/jgis.2013.56053.
3. Siordia, Carlos and Douglas F. Wunneburger. 2013. Contiguity Principle for Geographic Units: Evidence on the Quantity, Degree, and Location of Public Use Microdata Area (PUMA) Fragmentation. *Human Geographies*
4. Van Zandt, S. and D. Wunneburger. The Relationship between Residential Land Use Patterns and the Educational Outcomes of Economically-Disadvantaged Students in Texas. *Urban Education* 46(3) 292-321. 2011, September 2011.
5. Dumbaugh, E., R. Rae, and D.F. Wunneburger. 2010. Using GIS to Develop a Performance-Based Framework for Evaluating Urban Design and Crash incidence. *Urban Design International* Vol. 16, 1, 63-71. 2011.
6. Maghelal, P., M. Olivares, D. Wunneburger and G. Roman. 2008. Where are they? A spatial inquiry of sex offenders in Brazos County. *Journal of the Urban and Regional Information Systems*, Vol. 20, No. 1, 2008, pp. 27 – 34.
7. Azevedo, J.C.M., S.B. Jack, R.N. Coulson, and D.F. Wunneburger. 2000. Functional heterogeneity of forest landscapes and the distribution and abundance of the red-cockaded woodpecker. *For. Ecol. Manage*. 127 (2000) 271-283.
8. O'Keefe, S.T., J.L. Cook, T. Dudek, D.F. Wunneburger, M.D. Guzman, R.N. Coulson, and S.B. Vinson. 2000. The distribution of Texas ants. *Southwestern Entomologist.* June 2000, Supplement No. 22.
9. Coulson, R.N., M.D. Guzman, K. Skordinski, J.W. Fitzgerald, R.N. Conner, D.C. Rudolph, F.L. Oliveria, D.F. Wunneburger, and P.E. Pulley. 1999. Heterogeneity of forest landscapes and the interaction of the southern pine beetle with the Red-cockaded Woodpecker. *J. Forestry* 97:04-11.
10. Magnuson, Charles E., T.P. Grundy, Z.Z. Wang, M.J. Lupo, M.F. Conlin, D.F. Wunneburger, D. Rodriguez, and K.W. Brown. 1996. A GIS Application in a Study Involving a Large Number of Residents with Elevated VOC Exposures. *Geographic Information Systems in Environmental Resources Management*, Air & Waste Management Association, Pittsburgh, Pennsylvania, p. 334-345.

TECHNICAL REPORTS:

11. Peacock, W.G., Wunneburger, D., Abuabara, A. Park, H., and Van Zandt, S. (2016). ValleyStudy Area Hurricane Evacuation Study: Vulnerability Analysis Report. Hazard Reduction and Recovery Center and Texas A&M Transportation Institute. College Station, Texas.
12. Peacock, W.G., Van Zandt, S., Olivares, M., Wunneburger, D. (2016). Valley Study Area Hurricane Evacuation Study: Evacuation Zone Development Report. Texas A&M Transportation Institute and the Hazard Reduction and Recovery Center. College Station: Texas A&M University.
13. Goldberg, D.W., A.G. Klein, D.F. Wunneburger, J.R. Giardino. (2016) GIS Goes Far Beyond Geography at Texas A&M. *ArcNews, Winter 2016*. ESRI Press.
14. Peacock, W.G., S. Van Zandt, H. Grover, D. Wunneburger, S.D. Brody, J. Hicks-Masterson, CY Huang, F. Ndubisi, and J. Martin. (2013). *Status and Trends of Coastal Vulnerability to Natural Hazards Project Annual Report for Phase 5. Report submitted to the Texas General Land Office and the National Oceanic and Atmospheric Administration under GLO Contract* No. 11-025-000-4323 and to the Coastal Coordination Council pursuant to National Oceanic and Atmospheric Administration Award No. NA10NOS4190207. College Station, Texas: Hazard Reduction and Recovery Center.
15. Peacock, W.G., Brody, S.D., Grover, H., Wunneburger, D., Van Zandt, S., Husein, R., Kim, H.J., Ndubisi, F., & Martin, J. (2011). *Status and Trends of Coastal Vulnerability to Natural Hazards Project Annual Report for Phase 4. Report submitted to the Texas General Land Office and the National Oceanic and Atmospheric Administration and to the Coastal Coordination Council pursuant to National Oceanic and Atmospheric Administration* Award No. NA09NOS4190165. (GLO Contract No. 10-059-000-3758). Texas A&M University, College Station, TX: Hazard Reduction and Recovery Center.
16. Kim, H., D.F. Wunneburger and M. Neuman. 2011. Optimizing a High-Speed Rail Route using Sustainability Indicators and a Raster-Based GIS Modeling Process. Final Report to Daewoo Engineering Company, South Korea.
17. Neuman, M., D.F. Wunneburger, H. Kim, C. Morgan, J. Huang. 2011. Texas Urban Triangle: Creating a Spatial Decision Support System (SDSS) for Mobility Policy and Investments that Shape the Sustainable Growth of Texas, Phase II. Final Report to the UTCM.
18. Neuman, M., D.F. Wunneburger, H. Kim, C. Morgan, J. Huang. 2010. Texas Urban Triangle: Creating a Spatial Decision Support System (SDSS) for Mobility Policy and Investments that Shape the Sustainable Growth of Texas, Phase I. Final Report to the UTCM
19. Sullivan, Arthur L., H. Stone, D.F. Wunneburger, S. Pillai, and K. Grady. 1998. Integration of Economic Data with Erosion Projections, Task 3 Report on Contract GLO 98-014. November 30, 1998.

20. Rowell, Gareth A., J.P. Maresh and D.F. Wunneburger. 1998. Aerial Videography of Black-capped Vireo Habitat in Central Texas. Final Report for Endangered Species Act, Section 6, Texas Grant E-1-9, Project No. 57. April 30, 1998.
21. Thomas, John K. and D.F. Wunneburger, 1998. Community Development and Conflict Resolution: The Application of GIS and Survey Research Methods for Mitigating Hazardous Waste Disputes. Final Report for Research Enhancement Program FY 96-97.

BOOK CHAPTERS:

1. Wunneburger, D.F., M.A.Olivares and P. Maghelal. 2007. Internal Security for Communities:
2. A Spatial Analysis of the Effectiveness of Sex Offender Laws. *Geospatial Technologies in Homeland Security*, 2008 Springer.
3. Coulson, R.N. and D.F. Wunneburger. 1999. Impact of Insects on Human-Dominated and Natural Forest Landscapes. In Coleman, D. C. and P. F. Hendrix (Eds.). *Invertebrates as Webmasters of Ecosystems*. CAB International, Wallingford, UK, p. 271-291.

CONFERENCE PROCEDINGS

1. Van Zandt, S. and D.F. Wunneburger. 2007. Residential Land Use Patterns and Economic Segregation: Impacts on Educational Outcomes of Economically Disadvantaged Students, *ACSP 2007 Annual Conference*, Milwaukee, WI.
2. Wunneburger, D.F., M. Olivares and P. Maghelal. 2008. A Spatial Analysis of the Effectiveness of Sex Offender Laws. *Conference on Spatial Technologies in Homeland Security, Texas A&M University* (peer reviewed).
3. Wunneburger, D.F., M. Olivares and P. Maghelal. 2006. Assessing Risk of Registered Sex Offenders in Communities, *ACSP 2006 Annual Conference*, Fort Worth, TX.
4. Wunneburger, D.F. and B.B. DeFee. 2001. Integrating IT Tools to Assist Local Stakeholders in Open Space Decisions (Abstract No. 032). *GeoSpatial World 2001*, June 9-12, 2001, Atlanta, GA.
5. Wunneburger, D.F. and B.B. DeFee. 2001. Integrating IT Tools to Assist Local Stakeholders in Open Space Decisions. *CORP 2001: Geo Multimedia 01*, February 13-16, 2001, Vienna, AT.
6. Wunneburger, D.F. S. T. O'Keefe, T. K. Dudek, M. R. Muslam, R. N. Coulson, S. B. Vinson. 2000. FASIMS 2000 – An Update on The Fire Ant Spatial Information Management System. 2000 Imported Fire Ant Conference. Chattanooga, TN. April 2000.
7. O'Keefe, S.T., D.F. Wunneburger, R.M.Meegan, A. Men, R.N. Coulson, and S.B. Vinson. 2000. A Landscape Perspective of Fire Ants (*Solinopsis invicta* Buren) and Implications Toward Their Management: An Initial Assessment. 2000 Imported Fire Ant Conference. Chattanooga, TN. April 2000.
8. Wunneburger, Douglas F. 1998. Project-based Development of Enterprise-wide GIS. In Proceedings: *Geospatial Information and Technology Association 1998 GIS for the Oil and Gas Industry Conference and Exhibition.* Houston, TX. September 28-30, 1998.

9. Coulson, R. N., J.W. Fitzgerald, W.C. Daugherity, F.L. Oliveria, and D.F. Wunneburger. 1997. Using spatial data for integrated pest management in forest landscapes. Proc. 11th Conference on Geographic Information Systems: *Integrating Spatial Information Technologies for Tomorrow*. Vancouver, BC.
10. Sivanpillai, R., Wunneburger, D.F., Coulson, R.N., Maggio, R.C, 1997. Effects of remote sensor resolution on landscape element differentiation and mapping. Proceedings of the *12th Annual Symposium of the International Association for Landscape Ecology*, Durham, NC.
11. McKinney, Tony and D.F. Wunneburger. 1997. Using GPS-Controlled Airborne Videography for Rapid Mapping. In Proceedings: *Illinois GIS Association, Spring Conference*. Champaign, IL. April 15-16, 1997.
12. Coulson, Robert N., J.W. Fitzgerald, W.C. Daugherity, F.L. Oliveria, and D.F. Wunneburger. 1997. Using Spatial Data for Integrated Pest Management in Forest Landscapes. In Proceedings: *GIS '97*. Vancouver, BC. February 11-14, 1997.
13. Meyer, Thomas H., R.C. Maggio, D.F. Wunneburger, M. Eriksson, B. McCormick and D.Z. Sui. 1996. A conceptual framework for creating DTMs using finite elements and B-spline surfaces. In Proceedings: *GIS/LIS '96.* Denver, CO. November 19-21, 1996.
14. Winn, Jennifer P., R.C. Maggio and D.F. Wunneburger. 1996. GIS as an Educational Tool. In Proceedings: *GIS/LIS '96.* Denver, CO. November 19-21, 1996.
15. Wunneburger D.F., Butler J.R., Meyer T.H. (1996) Automated Video Tools For Classifying and Verifying LANDSAT Imagery. In Proceedings of 6th National Gap Analysis Meeting , July, 1996.
16. Wunneburger, Douglas F. and Deborah G. Wright. 1996. Socio-economic and environmental site evaluation--placing a facility in a populated rural landscape. *Intergraph Fall Users Conference*. New Orleans, LA. September, 1996.
17. Wunneburger, Douglas F. 1994. Management and analysis issues of problem solving with very large data bases. In Proceedings: *1994 Federal Geographic Technology Conference*, Washington, DC, September 26-29, 1994.
18. Wunneburger, Douglas F., J. Buchmiller, and T.H. Meyer. 1993. Generating referenced digital mosaics from aerial videography with parallel processing. In Proceedings: *GIS/LIS 1993.* Minneapolis, MN. November 2-4, 1993.

POSTER PRESENTATIONS

1. Wunneburger, Douglas F., R.N. Coulson, S.T. O'Keefe, R.M. Meegan, A. Men, and S.B. Vinson. A 2000. Landscape Perspective of Fire Ants (*Solenopsis invicta* Buren) and Implications Toward Their Management. International Association of Landscape Ecologists Conference, Tempe, AZ. April, 2001.

2. DeFee, Buren B. and D.F. Wunneburger. 2000. Integrating Stakeholder Concerns into Open Space Planning Decisions. International Association of Landscape Ecologists Conference, Tempe, AZ. April, 2001.
3. Baum, Kristen A., W.L. Rubink, R.N. Coulson, and D.F. Wunneburger. 1999. Effects of Landscape Pattern on the Distribution of Feral Honey Bee Colonies in Southeast Texas. Entomology Society of America, Atlanta, GA. December 16-18, 1999.
4. Coulson, Robert N., D.F. Wunneburger, S.T. O'Keefe R.P. Meegan, A. Men, S.B. Vinson. 1999. Hazard Rating Post Oak Savanna Landscapes for the Red Imported Fire Ant, *Solenopsis invicta* (Hymenoptera:Formicidae). International Association of Landscape Ecologists Conference, Snowmass, CO. July 29 – August 3, 1999.
5. Wunneburger, Douglas F., M. Guzman, R.N. Coulson, S.B. Vinson, and B. Drees. 1999. The Fire Ant Spatial Information Management System (FASIMS). 1999 Imported Fire Ant Conference. Charleston, SC. March 3-5, 1999.
6. Coulson, Robert N., D.F. Wunneburger, S.T. O'Keefe, R.P. Meegan, A.L. Jacroux Biggs and S.B. Vinson. 1999. Landscape Ecology of Red Imported Fire Ants in a Post Oak Savanna: Sampling Methodology. 1999 Imported Fire Ant Conference. Charleston, SC. March 3-5, 1999.
7. Coulson, Robert N., D.F. Wunneburger and F.L. Oliveria. 1998. Corridors for Movement of the Sourthern Pine Beetle in Forest Landscape Mosaics. *National Entomol. Soc Conference*. Las Vegas, NV. November 1998.
8. Guzman, Maria D., R.N. Coulson, D.F. Wunneburger, S.B. Vinson, and B. Drees. 1998. FASIMS, the fire ant spatial information management system. *National Entomol. Soc Conference*. Las Vegas, NV. November 1998.
9. Wunneburger, Douglas F., Jacroux Biggs, A.L., Coulson, R.N., S. T. O'Keefe, R. P. Meegan, and S.B. Vinson. 1999. Landscape Ecology of Red Imported Fire Ants in a Post Oak Savanna. *National Entomol. Soc Conference*. Las Vegas, NV. November 1998.

PAPER PRESENTATIONS

1. Wunneburger, D., Harlin, J. and French, C. (2019) Dual Credit and Early College High Schools: How can boards positively affect student achievement? txED CON19 *TASA/TASB Convention*
2. Wunneburger,D. (2019) Advancing Student Achievement through College Credit in High Schools: How Can School Boards Positively Affect Student Outcomes? *College of Architecture Research Symposium*
3. Wunneburger, D., Harlin, J. and French, C. (2019) Dual Credit and Early College High Schools: How can boards positively affect student achievement? *TASB Summer Leadership Institute*, San Antonio, TX
4. Wunneburger, D., Harlin, J. and French, C. (2019) Dual Credit and Early College High Schools: How can boards positively affect student achievement? *TASB Winter Governance Seminar*, Galveston, TX

5. Wunneburger, D. and French, C. (2018) National Conversation on College Readiness, *TASA/TASB Fall Conference*, Austin, TX
6. Wunneburger, D. and French, C. (2018) Redefining Readiness*, Summer Leadership Institute*, San Antonio, TX (program repeated at SLI in Fort Worth, TX)
7. Wunneburger, D. (2015) Tying Student Achievement to Governance Life-Cycle: From Vision to Results, *Summer Leadership Institute*, San Antonio, TX (program repeated at SLI in Fort Worth, TX)
8. Wunneburger, D. (2014) Seamlessly Connecting Cities & Schools, *Winter Governance and Legal Seminar*, Corpus Christi, TX
9. Wunneburger, D. (2013) Texas Public School Funding Inequities and Unintended Consequences, *Winter Governance and Legal Seminar*, Corpus Christi, TX
10. Wunneburger, D. (2012) Texas Public School Funding Inequities – Impacts, Solutions and Tools for Advocacy, Abridged for *College of Architecture Research Symposium*, College Station, TX
11. Wunneburger, D. (2012) Effects of Disparate Funding on Public School District Outcomes, *TASA/TASB Fall Conference*, Austin, TX
12. Wunneburger, D. (2012) Texas Public School Funding Inequities – Impacts, Solutions and Tools for Advocacy, *Texas Association of School Boards, Summer Leadership Institute*, San Antonio, TX
13. Wunneburger, D. (2011) Texas Coastal Planning Atlas: A Platform Serving Hazards and Mitigation Planning and Research. *Texas Geographic Information Systems Forum*, Austin, TX
14. Wunneburger, D. (2011) Critical GIS Skill and Applications for Planners, College Station, TX
15. Wunneburger, D. (2011) Census Data, Policy, and GIS, College Station, TX
16. Wunneburger, D. (2011) GIS in Water Resources, College Station, TX
17. Wunneburger, D. (2007) School District Attendance Zone Planning as a Component of Urban Growth, *College Research Symposium*, College Station, TX
18. Wunneburger, D. (2007) Recommendations of the Attendance Planning Committee to the Bryan ISD School Board, Bryan, TX
19. Wunneburger, D. (2006) Critical GIS Components in Homeland Security, *GeoSpatial Technology in Homeland Security*, College Station, TX
20. Wunneburger, D. (2006) Quantifying Levels of Risk to Communities by "Registered Sex Offenders as Determined by Legal Statute, *ACSP 47th Annual Conference*, Fort Worth, TX
21. Wunneburger, D. (2002) Applying GIS Tools in Landscape Architecture Projects. *Texas Nursery and Landscape Association*, Austin, TX.
22. Wunneburger, D. (2001) Assisting Open Space Decisions with Geomedia Web-map, GeoSpatial World 2001, Atlanta, GA
23. Wunneburger, D. (2001) Integrating IT Tools to Assist Local Stakeholders in Open Space Decisions, *CORP 2001 Geo-Multimedia 01*, Vienna, AT
24. Wunneburger, D. (1999) GIS – Spatial Information in Business. *MIS student presentation*. College Station, TX.

25. Coulson, R., S. O'Keefe and D. Wunneburger (1999) Geographic distribution and abundance of fire ants: a GIS/landscape ecology approach to suppression and prevention. *Texas Fire Ant Initiative Peer Review Board*. November 1999.
26. Wunneburger, D. and R. Coulson (1999) GeoInformatic measurements in landscapes: generating statistically valid tests of hypotheses. *East Texas Forest Entomology Seminar*. Nacogdoches, TX. October 1999.
27. Wunneburger, D. and R. Coulson (1999) Future impacts of information technology on forest pest management. *East Texas Forest Entomology Seminar*. Nacogdoches, TX. April 1999.
28. Coulson, R. and D. Wunneburger (1999) Distribution and abundance of fire ants in post oak savannas: GIS/landscape ecology approach to suppression and prevention. *Imported Fire Ant Conference*. Charleston, SC. March 1999.
29. Coulson, R. and D. Wunneburger (1999) Landscape ecology of the red imported fire ant in a post oak savanna landscape. *Imported Fire Ant Conference*. Charleston, SC. March 1999.
30. Wunneburger, D. and R. Coulson (1999) The fire ant spatial information management systems (FASIMS). *Imported Fire Ant Conference*. Charleston, SC. March 1999.
31. Coulson, R. and D. Wunneburger (1998) The Impact of Insects on Human Dominated and Natural Landscapes. *Arthropods as Webmasters of Ecosystems*. University of Georgia, Athens GA. 1998.
32. Coulson, R. and D. Wunneburger (1998) Using Meta-knowledge to Track Species Movement and Interaction in Landscape Mosaics. *Department of Entomology*, OARDC, Wooster, OH. 1998.
33. Coulson, R. and D. Wunneburger (1998) Metapopulation Dynamics of Forest Insects: Matching Spatial and Temporal Scales of Research and Management. *IUFRO D-7 Forest Health Conference on Solving Forest Insect Problems Through Research*. San Juan Puerto Rico. 1998.
34. Meghan, R., R. Coulson and D. Wunneburger (1998) Arthropod Activity Across Ecotones in a Post Oak Savanna Landscape. *East Texas Forest Entomology Seminar*. Lufkin, TX. 1998.
35. Coulson, R. and D. Wunneburger (1998) Landscape Ecology of the Red-Imported Fire Ant in a Post Oak Savanna Landscape. *East Texas Forest Entomology Seminar*. Lufkin, TX. 1998.
36. O'Keefe, S., R. Coulson and D. Wunneburger (1998) The Distribution of Texas Ants: A GIS Approach. *East Texas Forest Entomology Seminar*. Lufkin, TX. 1998.
37. Coulson, R. and D. Wunneburger (1998) Species Movement in Landscape Mosaics: Three Dimensional Corridors for Movement of Bark Beetles. *Southern Forest Insect Work Conference*. Asheville, NC. 1998.
38. Coulson, R. and D. Wunneburger (1998) Application of Computer Technologies in the Classroom. *Southern Forest Insect Work Conference*. Asheville, NC. 1998.
39. Wunneburger, D. and R. Coulson (1998) A Risk-Rating System for the Red-Imported Fire Ant in Post Oak Savanna Landscapes. *East Texas Forest Entomology Seminar*. Lufkin, TX. 1998.
40. Wunneburger, D. and R. Coulson (1997) Survey-Sampling for the Red Imported Fire Ant in Post Oak Savanna Landscapes. *East Texas Forest Entomology Seminar*. Lufkin, TX. 1998.

41. Coulson, R. and D. Wunneburger (1997) Using Spatial Data for Integrated Pest Management in Forest Landscapes. *Proc. 11th Conference on Geographic Information Systems: Integrating Spatial Information Technologies for Tomorrow. GIS '97*, Vancouver, BC. 1997.
42. Wunneburger, D. and R. Coulson (1997) Effects of Remote Sensor Resolution on Landscape Element Differentiation and Mapping. International Association of Landscape Ecologists Conference. Durham, NC.
43. Coulson, R. and D. Wunneburger (1997) Teaching Landscape Ecology in the University Environment. *International Association of Landscape Ecologists Conference*. Durham, NC. March 1997.
44. Wunneburger, D. (1997) Measuring Crown Structure of Loblolly Pine with Close-Range Stereophotogrammetry*. Intergraph International Users Group Conference*, Huntsville, AL.
45. Wunneburger, D. and J. Winn (1997) Teaching in Grades K-12 with GIS. *Intergraph International Users Group Conference*, Huntsville, AL.
46. Wunneburger, D. (1997) Classifying Satellite Imagery with Automatically Geo-Referenced Aerial Videography. *ASPRS/ACSM/Resource Technology Conference*, Seattle, WA.
47. Wunneburger, D. (1996) Integrating MicroStation into a University Education Program, *Bentley MicroStation Forum,* Austin, TX.
48. Wunneburger, D. (1996) Research Applications with Bentley MicroStation. *Bentley MicroStation Forum*, Austin, TX.
49. Wunneburger, D. (1996) Workshop on Automating Classification and Verification of Satellite Imagery with Aerial Videography, *National GAP Investigators Meeting*, Key Largo, FL.
50. Wunneburger, D. (1996) Integrating Automatically Referenced Aerial Videography with Satellite Remote Sensing. *ASPRS/ACSM/RT Spring Meeting*, April, 1996.
51. Wunneburger, D. (1996) A Case Study of Modeling with GIS: The Role of Heterogeneity of Forest Landscapes in Red-Cockaded Woodpecker Habitat. Virginia Polytechnic University, Blacksburg, VA.
52. Wunneburger, D. (1995) Research Issues at the Mapping Sciences Laboratory, *East Texas GIS Forum*, Huntsville, TX.
53. Wunneburger, D. (1995) GPS for Forest Resource Management, *East Texas Society of American Foresters*, Cleveland, TX.
54. Wunneburger, D. (1994) Overview of Research Projects of the Mapping Sciences Laboratory, *Texas GIS Forum*, Austin, TX.
55. Wunneburger, D. (1994) Management and Analysis Issues of Problem Solving with Very Large Data Bases, *International BioTechnology Institute*, Houston, TX.
56. Wunneburger, D. (1994) Automating Multistage Sampling Procedures with Aerial Videography. *National Biological Survey, White House Tour*, Washington, DC, October, 1994.
57. Wunneburger, D. (1994) Automating Multistage Sampling Procedures with Aerial Videography. *Federal Geographic Technology Conference*, Washington, DC, September, 1994.
58. Wunneburger, D. (1994) Applying GIS in Construction Engineering. Construction Executive Program. *Center for Construction Education*, Texas A&M University, January, 1994.

59. Wunneburger, D. (1991) Applying the Global Positioning System in Forest Management. *Texas Society of American Foresters*, Austin, TX, August, 1991.
60. Wunneburger, D. (1990) GIS Data Base Storage Alternatives. *Texas Association of Appraisal Districts*, College Station, TX, April, 1990.
61. Wunneburger, D. and C. Ware (1989) Modeling Oak Wilt Spread with GIS. *Texas Natural Resources Inventory System Second Biennial Symposium on GIS in Natural Resources*, Austin, TX, April, 1989.
62. Wunneburger, D. and C. Ware (1987) Monitoring Oak Wilt with GIS. *Texas Natural Resources Inventory System Second Biennial Symposium on GIS in Natural Resources*, Austin, TX, April, 1987.
63. Wunneburger, D. (1986) Applying GIS in Pest Management and Response. *East Texas Entomological Society*, Kurth Lake, TX, April, 1986.

RESEARCH GRANTS:

1. Co-Principal Investigator
   Texas Community Planning Atlas Enhancement and Engagement Proposal: Providing geospatial tools and engaging Texas coastal communities
   With: PI - Pamela Plotkin; Co-PIs: Danial Goldberg, Jaimie Hicks Masterson
   Duration: 2019 - 2021
   Sponsor: NOAA Sea Grant
   Amount: $150,000
   Objective: Continue development and maintain Texas Planning Atlas, an online spatial database of planning related state-wide themes and tools built on a web-GIS framework.
   Contribution**:** Develop and maintain GIS database and online mapping tools. Build models of hurricane surge extent. Supervise collection of data and verify validity.
2. Co-Principal Investigator
   Coastal Bend hurricane Evacuation Study: Evacuation Zone Development, Vulnerability and Transportation Analysis
   With: PI - Andy Mullins; Co-PIs - David Bierling, Darrell Borchardt, Walt Peacock
   Duration: 2018 - 2019
   Sponsor: US Army Corps of Engineers
   Amount: $350,000
   Objective: Develop a hurricane evacuation plan for the Coastal Bend. Employ the Texas Planning Atlas to build an online presence for large interagency working group. Develop models and indices using Texas Atlas framework.
   Contribution**:** Develop and maintain GIS database and online mapping tools. Supervise collection of data and verify validity. Build online presence for large interagency working group. Develop models and indices using Texas Atlas framework.
3. Co-Principal Investigator
   Valley Study Area Hurricane Evacuation Study: Evacuation Zone Development, Vulnerability and Transportation Analysis
   Hurricane Evacuation Study – Rio Grande Valley

With: PI - Andy Mullins; Co-PIs - Shannon Van Zandt, Darrell Borchardt, Roma Stevens, Walt Peacock
Duration: 2014 - 2016
Sponsor: US Army Corps of Engineers, ($350,000)
Objective: Develop a hurricane evacuation plan for the Rio Grande Valley. Employ the Texas Planning Atlas to build an online presence for large interagency working group. Develop models and indices using Texas Atlas framework.
Contribution**:** Develop and maintain GIS database and online mapping tools. Supervise collection of data and verify validity. Build online presence for large interagency working group. Develop models and indices using Texas Atlas framework.

4. Co-Principal Investigator
   A Coastal Planning Atlas for Decision Makers and Local Residents: Phase II
   With: PI - Samuel D. Brody; Co-PIs - Forster Ndubisi, Walt Peacock and June Martin
   Duration: 2008 - 2010
   Sponsor: NOAA Sea Grant, ($291,000)
   Objective: Develop a web-based GIS for community planning support
   Contribution: Improve framework, build database and applications for web-based GIS atlas.
5. Co-Principal Investigator
   Development of a Land Use Change Early Warning System II
   With: PI - Samuel D. Brody; Co-PIs - Wesley Highfield, Forster Ndubisi
   Duration: 2008 – 2009
   Sponsor: National Park Service, ($379,000)
   Objective: Develop a GIS-based system for early detection of potential development threats to national parks in urban settings.
   Contribution: Collect information regarding threats to Vicksburg National Battlefield Historic Park. Build map database to support evaluation, and conduct evaluation of potential threats.

6. Co-Principal Investigator
   Status and Trends of Coastal Vulnerability to Natural Hazards
   With: PI - Walt Peacock
   Co-PIs: Sam Brody, Carla Prater, Michael Lindell, Forster Ndubisi, and June Martin
   Duration: 2007 - 2012
   Sponsor: Government Land Office of Texas, Contract No. 11-025-000-4323, ($650,000)
   Objective: Identify best practices and emerging technologies related to hazard mitigation planning, building code, land use planning that could further mitigate the potential impacts of coastal natural hazards. Assess the local, state and federal resources available for mitigation, preparedness, response and recovery from coastal natural hazards and evaluate their application to the CMZ. Evaluate the geographic relationship between current CMP boundaries and project impacts from various categories of hurricanes based on the latest coastal study area maps. Assess the physical and social vulnerabilities of coastal populations to facilitate planning and policy development related to hazard mitigation and response. In a continuing effort to promote the usage of the coastal atlas website developed and its various components, task 6 of this project will continue to utilize and create opportunities to introduce the website to the public and develop specific learning modules to facilitate usage of the resources being develop. Two formal training classes targeted at local governments will be conducted by TAMU.
   Contribution**:** Build framework for Coastal Planning Atlas, a web-based GIS data repository and analysis tool.
7. Co-Principal Investigator
   Texas urban triangle: pilot study to implement a spatial decision support system for sustainable mobility
   With: Co-PI – Michael Neuman
   Sponsor: University Transportation Center for Mobility
   Amount: $57,577
   Duration: 2009 – 2011
   Objective: Study opportunities for creating sustainable transportation systems for the Texas Urban Triangle through construction of a spatial decision support system.
   Contribution: Supervise development of GIS database and spatial models.
8. Co-Principal Investigator
   High-Speed Rail in Texas Urban Triangle
   Sponsor: Daewoo Engineering Co of Korea
   Amount: $27,000
   Duration: 01/30/2011 - 09/30/2011
   Objective: Develop methods for determining suitable locations for new transportation infrastructure in the Texas Urban Triangle. Build a GIS-based decision making tool employing mapping of emerging realities of growth in the area.
   Contribution: Supervise acquisition and construction of GIS database and models.

9. Co-Principal Investigator
   Unmet needs from Katrina-Rita: 2-1-1 requests for help in Texas, 2005
   Sponsor: Department of Homeland Security: Community Preparedness, Response, and Recovery Program
   With: PI - Sherry Bame
   Amount: $750,000
   Duration: 2008 – 2011
   Objective: Determine gaps in distribution and availability of 2-1-1 services during high use periods.
   Contribution: Supervise student in developing GIS analysis.
10. Co-Principal Investigator
    Texas Urban Triangle: Creating a Spatial Decision Support System for Mobility Policy and Investments that Shape the Growth of Texas Sustainability
    With: PI - Michael Neuman
    Sponsor: University Transportation Center for Mobility, Texas Transportation Institute
    Amount: $100,000
    Duration: 2009 – 2010
    Objective: Develop spatial decision support system to facilitate local, metropolitan and statewide planning and investment decisions in transportation systems. The web-based interface will help to address important research questions related to future growth in the Texas Urban Triangle.
    Contribution: Supervise acquisition and construction of GIS database and models.
11. Co-Principal Investigator
    Examining the Design and Developmental Factors that Influence the Incidence of Urban Traffic Crashes: Phase 1 Study
    Sponsor: Southwest Region University Transportation Center
    Amount: $60,000
    With: PI - Eric Dumbaugh
    Duration: One year
    Objective: Assemble the data needed to meaningfully consider traffic safety in urbanized environments, as well as to provide a preliminary examination of the broader safety patterns that emerge. Systematically examine how the incidence of traffic-related crashes and injuries in urban areas might vary as a function of a roadway's developmental context.
    Contribution: Develop model for statistical model for spatially distributed crash analysis.
12. Co-Principal Investigator
    Status and Trends of Coastal Vulnerabilities to Natural Hazards
    Sponsor: Texas State Government Land Office
    Amount: $131,297
    With: PI - Walt Peacock; Co-PIs - Sam Brody, Mike Lindell, Carla Prater, Forster Ndubisi
    Duration: One year
    Objective: Study emerging trends and vulnerable areas and facilities in coastal areas due to hurricane and other natural risks.
    Contribution: Build database framework for GIS analysis of vulnerable areas and critical facilities.

13. Co-Principal Investigator
    Development of a Land Use Change Early Warning Monitoring System I
    Sponsor: National Park Service, GCCESU
    Amount: $388,000
    With: PI - Sam Brody; Co-PIs - Chris Ellis, Walt Peacock, Forster Ndubisi
    Duration: 2006 - 2008
    Objectives: Develop data infrastructure, protocol and mechanism for early detection of land use changes in proximity to national parks in the Gulf Coast Cooperative Unit area
    Contribution: Interview local experts and develop analysis model for early identification of threats to national parks situated near or within urban areas.
14. Co-Principal Investigator
    Developing a Coastal Communities Planning Atlas as an Educational Tool for Decision Makers and Local Residents
    Sponsor: National Park Service
    Amount: $130,000
    With: PI – Chris Ellis; Co-PIs – Sam Brody, Forster Ndubisi, Walt Peacock
    Duration: 2005 – 2008
    Objective: Develop a GIS-based system for early detection of land use change in close proximity to National Parks.
    Contribution: Interview local experts and develop analysis model for early identification of threats to national parks situated near or within urban areas.
15. Co-Principal Investigator
    Texas Urban Triangle: Framework for Future Growth
    Amount: $60,000
    With: PI - Michael Neuman; Co-PIs - David Ellis, Dan Sui, Elise Bright
    Duration: One year
    Objectives: Develop baseline for future research detailing relationships between transportation and other infrastructure to inform integration of policy, planning, and investments in multiple use inter-metropolitan infrastructure corridors.
    Contribution: Supervise acquisition and construction of GIS database and models. Develop methods of analysis.
16. Co-Principal Investigator
    Developing a Coastal Communities Planning Atlas as an Educational Tool for Decision Makers and Local Residents
    Sponsor: Sea Grant
    Amount: $250,000
    With: PI - Sam Brody; Co-PIs - Walter Peacock, Forster Ndubisi, June Martin
    Duration: Two years
    Objectives: Develop an Internet based planning tool for coastal counties of Texas. Create model building scenarios to be used by planners and the general public. Output of scenarios to be delivered by web images, on-line GIS, and OGC standard feature services.
    Contribution: Determine necessary hardware and software resources for hosting a web-based decision support system. Acquire and implement systems to support project.

17. Co-Principal Investigator
Hurricane Katrina Response
Sponsor: National Park Service
Cooperators: Gillian Bowser, Terry Wade, Anthony Filippi
Amount: $6000
Duration: 6 months
Objective: Assist in analyzing impact of Hurricane Katrina on NPS employees, develop baseline datasets to monitor changes in Gulf Islands.
Contribution: Create image mosaics of Gulf Islands to quantify landscape changes due to Hurricane Katrina.

18. Co-Principal Investigator
Integrating GIS, GPS, and Mobile Mapping Technologies to Automate Survey and Monitoring of Forest Insects and Diseases: the southern pine beetle as a model system
Sponser: USDA Forest Service, Forest Health Protection
Amount: $66,582
Duration: 2003-2005
With: PI - R. N. Coulson, Knowledge Engineering Laboratory;
Co-PIs - M. D. Tchakerian, Knowledge Engineering Laboratory, D. F. Wunneburger, College of Architecture, S. R. Clarke and F. L. Oliveria USDA, Forest Service, Forest Health Protection.
Objectives: To develop a system for survey and monitoring of forest insects and diseases that integrates GIS, GPS, and mobile mapping technologies.
Contribution: Develop web-based system for acquiring and disseminating information to monitor insect and disease threats southern forests.

Co-Principal Investigator
Texas Pest Survey Response System: Homeland Security for Food Supply
Sponser: USDA APHIS, Texas Department of Agriculture
Amount: $277,027
Duration: 2003 - 2006
With: PI - R. N. Coulson, Knowledge Engineering Laboratory; Co-PIs, M. D. Tchakerian, Knowledge Engineering Laboratory, D. F. Wunneburger, College of Architecture, and J. A. Jackman, Department of Entomology.
Objectives: To develop and implement a computer application that facilitates mapping of survey data on pest species
Contribution: Supervise development of computer application to map results of pest surveys.

19. Co-Principal Investigator
    Evaluating the Impact of Southern Pine Beetle on Ecologically Sustainable Forest Management
    Sponser: USDA Forest Service, Forest Health Protection
    Amount: $90,000
    Duration: 2000-2004
    With: PI - R. N. Coulson, Knowledge Engineering Laboratory; Co-PIs, F. L. Oliveria, USDA Forest Service Forest Health Protection; D. F. Wunneburger, GeoInformatics Studio, College of Architecture.
    Objectives: To define the impact of the Southern Pine Beetle on the ecological processes that affect sustainability of forests.
    Contribution: Supervise GIS model development of SPB impact.
20. Co-Principal Investigator
    Evaluating the Impact of Southern Pine Beetle on Ecologically Sustainable Forest Management
    Sponsor: USDA- Forest Service
    Amount: $30,000
    Duration: 2000 (1 yr.)
    With: Co-PIs - R.N. Coulson, F.L Oliveria, D.F. Wunneburger
    Objective: To develop methods for a landscape ecology approach in evaluating impacts of endemic SPB populations on sustainable forest management and prescribe ecologically sound management practices for sustainability at landscape scale.
    Contribution: Develop data acquisition and modeling processes for landscape approach to SPB impact.
21. Co-Principal Investigator
    Open Space Inventory of Brazos Valley Counties
    Sponsor: Brazos Valley Council of Governments, Environmental Subcommittee
    Amount: $28,800
    Duration: 1999 - 2001
    Objective: To develop an open space inventory of the seven counties in the Brazos Valley Council of Governments, and create Internet GIS-based delivery and evaluation tools for local stakeholders.
    Contribution: Conceptualize framework and supervise student development of open space inventory.
22. Co-Principal Investigator
    Geographic Distribution and Abundance of Fire Ants: A GIS/Landscape Ecology Approach to Suppression and Control
    Sponser: Texas Agricultural Experiment Station
    Amount: $128,000
    Duration: 1999-2001
    With: PI - R. N. Coulson, Knowledge Engineering Laboratory; Co-PIs - S. B. Vinson, D. F. Wunneburger, P. E. Pulley, D. Sui, X. Wu.
    Objectives: To develop a risk rating system for fire ants in post oak savanna landscapes.
    Contribution: Build database and model for risk rating system.

23. Co-Principal Investigator
    The Fire Ant Spatial Information Management System(FASIMS)
    Sponser: The Texas Department of Agriculture, Texas Imported Fire Ant Research and Management Plan.
    Amount: $220,000
    Duration: 1999-2001
    With : PI - R. N. Coulson, Knowledge Engineering Laboratory, Co-PIs - D. F. Wunneburger, S. B.Vinson, and W. Daugherity.
    Objectives: To develop an enterprise GIS for the Texas Department of Agriculture to assist in planning, problem-solving, and decision making relative to the Fire Ant and related programs.
    Contribution: Determine and acquire systems for building enterprise GIS. Install system and build decision support tools. Supervise student contributions to project.
24. Co-Principal Investigator
    College Station Easement Conversion
    Sponsor: City of College Station, TX
    Amount: $180,000
    Duration: 1999-2000 (3 yr.)
    With: Co-PI - T. Woodfin
    Objective: Develop automated procedures for (a) conversion of historical easements from legal abstracts to GIS themes, and (b) evaluation and delivery using Internet-based GIS. Convert easements from abstracts and plats to GIS database.
    Contribution: Oversee project, develop methods of data acquisition and conversion. Write scripts to standardize and compile results. Deliver completed easement layer to City of College Station, TX.
25. Co-Principal Investigator
    Development of an Internet-Supported Enterprise GIS (ISEGIS)
    Sponsor: College Research Council
    Amount: $6,000
    Duration: 1999 (6 mo.)
    With: PI - Christopher Ellis (Dept. LAUP); Co-PI - D.F. Wunneburger (College of Architecture)
    Objective: Identify and organize agencies that would benefit from real-time spatial data sharing and, develop a series of customized (or customizable) interfaces for supporting typical spatial queries and analyses within the participating agencies.

26. Co-Principal Investigator
Geographic Distribution and Abundance of Fire Ants: A GIS/Landscape Ecology Approach to Suppression and Prevention
Sponsor: TAES, Texas Department of Agriculture
Amount: $437,000
Duration: 1997-2001 (4 yrs.)
With: PI - R. N. Coulson, Knowledge Engineering Laboratory, Co-PIs - D. F. Wunneburger (College of Architecture), S. B. Vinson, and Paul E. Pulley (Dept. Ento.), Dr. Dianzhi Sui (Dept. Geog.), Dr. Xinyuan Wu (Dept of Rang Ecol. and Mg.).
Objective: To develop a risk rating system for fire ants in post oak savanna landscapes and to develop a fire ant spatial information management system (FASIMS).
27. Co-Principal Investigator
Applying GIS and satellite imagery based methods for estimating timber acreage by forest use type
Sponsor: Texas Comptroller of Public Accounts
Amount: $27,000
Duration: One year
With: PI - Robert D. Baker, Co-PI - D. F. Wunneburger
28. Principal Investigator
Map Coverage Search for Marine Related Data of Mobile Bay
Sponsor: Center for Marine Training and Safety
Amount: $1,500
Duration: Two Weeks
PI: D. F. Wunneburger
29. Principal Investigator
Texas GAP Analysis -- Inventory and Analysis of Biodiversity in Texas
Sponsor: National Biological Service
Amount: $78,616
Duration: Eighteen Months
PI: D. F. Wunneburger
30. Principal Investigator
GIS Based Oil Spill Response Simulator for Egypt
Sponsor: Ship Analytics, Arab Academy of Science and Technology
Amount: $210,834
Duration: Eight Months
PI: D. F. Wunneburger
31. Co-Principal Investigator
Community Development and Conflict Resolution: The Application of GIS and Survey Research Methods for Mitigating Hazardous Waste Disputes, Co-PI
Sponsor: Research Enhancement Program
Amount: $38,800
Duration: Two Years
PI: John K. Thomas, Co-PI: D. F. Wunneburger, H. Ladewig, J. Thigpen

32. Principal Investigator
Black-Capped Vireo Habitat Assessment -- Predicting potential habitat using aerial videography and high altitude photography
Sponsor: Texas Parks and Wildlife
Amount: $27,000
Duration: Fifteen Months
PI: D. F. Wunneburger
33. Co-Principal Investigator
Texas GAP Analysis -- Developing and applying multi-stage sampling procedures for LANDSAT imagery using aerial videography
Sponsor: National Biological Survey
Amount: $47,000
Duration: One year
PI: D. F. Wunneburger
34. Co-Principal Investigator
Texas GAP Analysis -- Inventory and analysis of biodiversity in Texas
Sponsor: National Biological Survey
Amount: $14,826
Duration: One year
PI: R. C. Maggio, Co-PI: D. F. Wunneburger
35. Co-Principal Investigator
Developing a Center of Excellence in the Mapping Sciences, Co-PI
Sponsor: Intergraph Corporation, Trimble Navigation, TAES
Amount: $2,815,000
Duration: 1994 - 1999
Co-PI: R. C. Maggio, D. F. Wunneburger; With Administrator: G. D. Liccioni; Co-workers: C. R. Bassham, J. H. Culver and D. G. Wright
36. Co-Principal Investigator
Automated Data Capture -- Developing procedures to rectify aerial videography
Sponsor: USDA -- Soil Conservation Service
Amount: $30,447
Duration: One year
PI: Robert C. Maggio
37. Principal Investigator
Optimizing a Parallel Processing System for Very Large GIS and Remote Sensing Data Base Applications, Project Leader
Sponsor: Electronic Data Systems
Amount: $100,757
Duration: One Year
Contribution: Develop vision analysis method for building image mosaics and write parallelized code to test concept of parallel processing of spatial problems.

SERVICE

COMMITTEE ACTIVITIES:

Landscape Architecture and Urban Planning:

PLAN Committee – (Co-chair 2019 – present)

Oversee committee activities relating to the Bachelor of Science in Urban and Regional Planning (BSURPN) degree program. Identify, organize and assign tasks as needed to coordinate program. Develop curriculum matrix of material covered in offered courses. Support co-chair in overseeing Master of Urban Planning (MUP) degree program.

Master of Urban Planning Program Committee – (Member 2008 – 2018)

Serve as member of committee overseeing Master of Urban Planning degree program. Develop curriculum matrix to identify gaps of coverage in offered classes. Review candidate applications. Determine winners of awards. (Merged with BSURPN in 2018.)

Bachelor of Science in Urban and Regional Planning Program Committee

Serve as member of committee overseeing Bachelor of Science in Urban Planning degree program. (Merged with MUP Committee in 2018.)

Department Partnership in Communities Outreach Committee (2012 – 2019)

Serve as member of committee to establish guidelines to identify, monitor, and document service learning opportunities for students.

College of Architecture:

Information Technology Committee (2008 – 2019)

Serve as advisor to IT group regarding departmental needs and as liaison to department regarding IT policies. Work with Information Technology staff to determine College of Architecture priorities and practices for computing resources.

Outstanding Alumni Selection Committee (2012)

Serve on College of Architecture committee to select distinguished alumni for recognition by Former Students Association.

Texas A&M University:

Computer Access Fee Competitive Grant Committee (Member 2010, Chair 2011)

Serve as member and chair to set criteria for competitive grant proposals, seek proposals for submission, review proposals, and rank and award limited grant funds.

GIS Certificate Steering Committee (2000 – present)

Establish, review and update graduate GIS certificate. Represent department to university group to assure full inclusion of LAUP GIS classes in certificate options and compatibility with LAUP degree programs.

GeoSpatial Faculty (1998 – present)

Participate in coordination of issues related to geospatial activities on campus.

GIS Day Planning Committee (2014 – present)

Plan and administer annual GIS Day activities. Moderate sessions including LAUP faculty and student presentations.

Other:

Texas State GIS Advisory Committee, Department of Information Resources (1994 – 1996)

Serve on statewide board to identify key factors in applying geospatial technologies in Texas State government agencies.

Intergraph Users Group, Education Special Interest Group Chair (1996-1998), Vice-Chair (1998-2000)

Lead user group community in serving education needs for geospatial instruction.

BRYAN ISD BOARD OF TRUSTEES:

Serve as elected trustee to oversee district resources to benefit its students, set goals, policies, budget, and tax rates for Bryan ISD. Hire and supervise superintendent of schools. Follow state law regarding open meetings and other requirements. Develop, review and approve Strategic Plan, building programs and bond and tax ratification elections. Assuring that all actions regard "Children First, Always".

Bryan ISD 2018 to 2019 – Representative to Brazos Valley Council of Governments
Bryan ISD 2017 to 2019 – Curriculum Committee
Bryan ISD 2017 – Calendar Committee
Bryan ISD 2013 – 2018: Construction Committee
Bryan ISD 2013 – Attendance Zone Planning Committee
Bryan ISD 2012 – 2019 Finance Committee
Bryan ISD 2012 – Strategic Planning Committee
Bryan ISD 2007 – 2012 City Liaison Committee
Bryan ISD 2007 – 2012 Audit Committee
Bryan ISD 2007 – 2019 Board of Trustees

Offices Held:

President – 2014, 2015, 2017
Vice President – 2013
Secretary – 2009 - 2012

Texas Association of School Boards:

Leadership TASB – 2012 Master Trustee
State representative to National School Boards Association – 2014, 2015, 2017, 2019

Presentations to State Association:

1. Wunneburger, D., Harlin, J. and French, C. (2019) Dual Credit and Early College High Schools: How can boards positively affect student achievement? txED CON19 *TASA/TASB Convention*
2. Wunneburger, D., Harlin, J. and French, C. (2019) Dual Credit and Early College High Schools: How can boards positively affect student achievement? *TASB Summer Leadership Institute*, San Antonio, TX
3. Wunneburger, D., Harlin, J. and French, C. (2019) Dual Credit and Early College High Schools: How can boards positively affect student achievement? *TASB Winter Governance Seminar*, Galveston, TX

4. Wunneburger, D. and French, C. (2018) National Conversation on College Readiness, *TASA/TASB Fall Conference*, Austin, TX
5. Wunneburger, D. and French, C. (2018) Redefining Readiness*, Summer Leadership Institute*, San Antonio, TX (program repeated at SLI in Fort Worth, TX)
6. Wunneburger, D. (2015) Tying Student Achievement to Governance Life-Cycle: From Vision to Results, *Summer Leadership Institute*, San Antonio, TX (program repeated at SLI in Fort Worth, TX)
7. Wunneburger, D. (2014) Seamlessly Connecting Cities & Schools, *Winter Governance and Legal Seminar*, Corpus Christi, TX
8. Wunneburger, D. (2013) Texas Public School Funding Inequities and Unintended Consequences, *Winter Governance and Legal Seminar*, Corpus Christi, TX
9. Wunneburger, D. (2012) Texas Public School Funding Inequities – Impacts, Solutions and Tools for Advocacy, Abridged for *College of Architecture Research Symposium*, College Station, TX
10. Wunneburger, D. (2012) Effects of Disparate Funding on Public School District Outcomes, *TASA/TASB Fall Conference*, Austin, TX
11. Wunneburger, D. (2012) Texas Public School Funding Inequities – Impacts, Solutions and Tools for Advocacy, *Texas Association of School Boards, Summer Leadership Institute*, San Antonio, TX

OTHER COMMUNITY SERVICE:

Brazos Civic Orchestra 2019 – Board of Directors
Bryan ISD 2006 – 2008 District Educational Improvement Committee
Bryan ISD 2006 – Attendance Zone Planning Committee
Bryan ISD Parent Leadership Team
Board of Directors, Parent Educator Partnership Program, Bryan ISD
Parents as Teachers Program, Bryan ISD
Brazos Valley Cyclists, Texas Bicycle Coalition founding member
Administrative Board, First United Methodist Church of Bryan, 2000-2003
FUMC Children's Bell Choirs, Director
President, Jane Long Middle School PTO, Bryan ISD
Bryan ISD 2003-2004 Facilities Planning Committee
Bryan ISD 2004-2005 Parent Communication Committee
Bryan Little League North Jr. Minor Manager
Bryan Schools Tomorrow Committee 2004-2005
Bryan Soccer Club U-13 Girls Coach
Co-chair, 2004-2005 Bond Election Committee Speakers Bureau

CONTINUING EDUCATION

2007 – Present
Over 30 hours per year of continuing education on governance of public schools, Texas Association of School Boards, various locations

2018 ArcGIS Server Enterprise Administration, ESRI User Conference, San Diego, CA

2018 Enterprise Database Management, ESRI User Conference, San Diego, CA

2018 Spatial Analysis, ESRI User Conference, San Diego, CA

2018 Spatial Regression Analysis, ESRI User Conference, San Diego, CA

2012 Leadership TASB training series, named Master Trustee

2012 100 hours governance training, Texas Institute for School Boards, Center for Reform of School Systems

2006 Participant, projecting population growth to determine public school attendance zone boundaries

2004 Participant, 1 day workshop on spatial demographic analysis, Austin, TX

2003 Participant, 3 day workshop on Geo-database design and implementation, Vienna, VA

2002 Instructor, 2 day workshop on applying GIS tools in hazards preparation and mitigation for visiting Taiwanese delegation, College Station, TX

1999 Coordinator and Instructor, 1 day workshop on applying GeoMedia in county government for the National Association of Counties. College Station, TX.

1999 Participant, 3 day workshop on GeoMedia Web Map. Huntsville, AL.

1998 Coordinator and Instructor, 1 day workshop on application and integration with GIS of real-time differential GPS for field sampling navigation and recording, College Station, TX and Austin, TX

1997 Coordinator and Instructor, 1 day workshop on Using SkyKing for Classifying and Verifying Satellite Imagery, Stillwater, OK

1996 Participant, GIS Applications with GeoMedia, Huntsville, AL

1996 Participant, Cartography for GIS Professionals, Texas GIS Forum, Austin, TX

1996 Participant, Map Design for GIS Specialists, Texas GIS Forum, Austin, TX

1996 Coordinator and Instructor, 1 day workshop on Integrating Aerial Videography Into an Image Analysis Workflow, Key Largo, FL

1995 Coordinator and Instructor, 4 day workshop in GPS and Remote Sensing for Taiwan delegation, College Station, TX

1994 Participant, 5 day workshop on Intergraph ISI-I and ISI-II+ Remote Sensing Tools, Huntsville, AL.

1994 Participant, 5 day workshop on Intergraph Modular GIS Environment, College Station, TX.

1994 Participant, 5 day workshop on Intergraph MicroStation 2D Level I Graphics, College Station, TX.

1994 Coordinator and Instructor, one day workshop on applying GIS in construction engineering, presented to vice-president level executives of major world-wide construction engineering firms, Construction Executive Program, Center for Construction Education, Texas A&M University, College Station, TX.

1992 Participant, 5 day workshop on Machine Vision and Visualization, College of Engineering, University of Michigan, Ann Arbor, Michigan

1992 Coordinator and Instructor, one day workshop on Intergraph Modular GIS Environment at Government Technology Conference, Austin, Texas
1991 Participant, 3 day workshop on System 9 Analytical Tool Box
1991 Organizer and Instructor, 3 day GIS workshop for government personnel
1990 Coordinator and Instructor, One day workshop on GIS for city and county personnel
1990 Instructor, One day workshop for Texas State Soil and Water Conservation Board
1988 Organizer and co-instructor for one day workshop on GIS at the National GIS convention (GIS 88) for ASPRS, San Antonio, Texas
1987 Instructor, One day GIS workshop for regional planners
1987 Organizer and co-instructor for second 2.5 day GIS workshop
1986 Instructor, One day GIS workshop for National Park Service personnel
1985 Software developer, organizer and co-instructor for Microcomputer Based Geographic Information Systems for Forest Resource Managers, 2.5 day workshop

CONSULTING ACTIVITIES:

2005 Work with Environmental Research Group (ERG) to analyze impact of soils on contribution to air pollution in Texas from NOX and particulates in heavy construction
2005 Assist City of Brenham in developing street centerline database
2005 Assist Pipeline Compliance America in population density analysis project
2004 Assist Pipeline Compliance America in population density analysis project
2002 Assist Dow Gas Pipeline Company in Aerial mapping project
2001 Assist Seadrift Gas Pipeline Company in mapping pipeline
2000 Assist Union Carbide Gas Pipeline Company in GIS-Based Pipeline Management
1997 Assist Texas Department of Transportation with Litigation Action
1996 Assist Gas Pipeline Companies in GIS-Based Pipeline Management
1996 Assist Petroleum Refinery in Solid Waste Application Project
1995 Assist private engineering firm in litigation concerning contaminant migration
1994 Assist San Antonio Water District in Determining Potential Disposal Sites for Solid Waste Sludge
1994 Provide Assistance to Gas Pipeline Companies in Applying GIS in Pipeline Management
1993 Develop Class Location Analysis for gas pipeline companies
1992 Advise in applying GIS to site remediation plan for Star Refinery, Port Arthur, Texas
1991 Assist in developing proposal for preparing remediation plan for Star Refinery, Port Arthur, Texas
1988 Prepare report of environmental impact of saltwater disposal injection well to Katy Saltwater Disposal Company, Provide testimony to Texas Railroad Commission regarding report.

PROFESSIONAL AFFILIATIONS:

National School Boards Association
Texas Association of School Boards
Leadership TASB
American Society for Photogrammetry and Remote Sensing
International Association of Landscape Ecologists

Society of American Foresters
Xi Sigma Pi
Kappa Kappa Psi

HONORS AND AWARDS:

2019 Awarded 30-year pin for service at Texas A&M University
2019 Elected to board of Brazos Civic Orchestra
2018 Elected to represent Texas public schools as trustee liaison to U. S. Congress
2016 Elected to represent Texas public schools as trustee liaison to U. S. Congress
2015 Elected President – Bryan Independent School District Board of Trustees
2014 Elected to represent Texas public schools as trustee liaison to U. S. Congress
2013 Elected President – Bryan Independent School District Board of Trustees
2012 Elected to represent Texas public schools as trustee liaison to U. S. Congress
2012 Elected President – Bryan Independent School District Board of Trustees
2012 Elected President – First United Methodist Church of Bryan Board of Trustees
2012 Designation as Master Trustee
2011 Selection to 2011 Leadership TASB class
2007 Elected Trustee, Bryan ISD (re-elected in 2010, 2013, 2016)
2006 Research on sex offenders featured in 2007 TAMU Research *Advance* magazine
2004 Identified as Top 25% Most Effective Teacher at TAMU
1994 Recognition for Significant Contributions to the Mapping Sciences
1986 Second Prize, FORS National Student Applied Forestry Software Contest.
1985 Second Prize, FORS National Student Applied Forestry Software Contest.

This CV submitted is most current and correct as of the date of this signature.

Douglas F. Wunneburger	**Date**