

CURRICULUM VITAE

DAVID T. ALLISON, Ph.D.

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Academic Degrees

Ph.D. Geology, The Florida State University, Tallahassee, Florida, August 1992

B.S. Geology, University of Alabama, Tuscaloosa, Alabama, August 1980

Academic/Professional Experience

June 1997 - Present Associate Professor, Department of Earth Sciences, University of South Alabama, Mobile, Alabama

January 1992- June 1997 Assistant Professor, Department of Geology and Geography, University of South Alabama, Mobile, Alabama

January 1990- December 1992: Instructor, Department of Geology and Geography, University of South Alabama, Mobile, Alabama

August 1987- December 1989: Geological Technician, Geographic Information Systems section, Suwannee River Water Management District hydrogeologic mapping project, Florida Geological Survey, Tallahassee, Florida

August 1986- December 1989: Course Instructor, Introductory Geology, Tallahassee Community College, Tallahassee, Florida

August 1981- May 1986: Graduate Teaching Assistant, Structural Geology Laboratory, Optical Mineralogy Laboratory, Introductory Geology Laboratory, Summer Geology Field Course, The Florida State University

May 1981- August 1981: Geological Technician, Gulf Oil Corporation, Lafayette, Louisiana

January 1981- May 1981: Graduate Teaching Assistant, Structural Geology Laboratory, University of Alabama

Service**University Service**

1998 University of South Alabama Technology in Higher Education Spring Seminar- presenter of computer modeling techniques (May 15, UCOM 3600)

Faculty Senate, elected Fall of 1997, served 1998-2000

Faculty Senate, Planning and program committee, 1997-98

College Committees

Chair, Academic Programs Planning Committee (1997)

Academic Programs Planning Committee (1996)

Arts and Sciences Support and Development Awards Committee (1992)

Departmental Committees

Departmental Tenure Committee (1999-2000)

Departmental Curriculum Committee (1991-1993,1995-1997,1999-2000)

Departmental Curriculum Committee Chair (1992,1996,1997)

Departmental Textbook/Library Committee (1991-1992,1997,1998,1999-2000)

Faculty/Student Grievance Committee (1992,1996)

Add hoc Committee for procuring laptop computer (1999), Chair

Community

Regional Middle and High School Science Olympiad, Volunteer Tester, Earth Science Lab, Feb 26, 2000

Alabama State Middle School Science Olympiad, Volunteer Tester, Earth Science Lab, April 27, 1996

Mobile Area Middle School Science Olympiad, Volunteer Tester, Earth Science Lab, March 2, 1996

Television interview with Channel 5 news concerning the January 17, 1994, Los Angeles (Northridge) earthquake

Presentations to the Mobile Rock and Gem Society (Fall 1990,1991,1998)

Other

Faculty advisor, Geology Club (1991-2000)

Faculty Coordinator, Sigma Gamma Epsilon Earth Science Honorary (1992-2000)

Geological Society of America Partner's in Education Program (PEP) (1998-2000)

Scholarly Activities

Research Grant Proposals

Submitted: Undergraduate geologic field mapping to refine tectonostratigraphy within the northeast Talladega Belt of Alabama, 2002, U.S. Dept. of Interior Geological Survey EDMAP, \$65,321, PI

Results: pending

Submitted: Development of a Remote Microprobe Facility at the University of South Alabama Using INTERNET 2, EPSCoR, 2001, \$10041, Co-PI.

Results: funded for requested amount

Submitted: Acquisition of a white water canoe for geoscience sample collection, Department of Geology, Geography, and Meteorology: USA Arts and Sciences Support and Development Award, 1996, \$900, PI.

Results: funded for requested amount

Submitted: Holocene Sedimentary History of Weeks Bay, AL: Human and Natural Impacts on Deposition in a Gulf Coast Estuary, 1998, Alabama Center for Eustuarine Science (ACES) Program, \$145,000/3 years, Co-PI

Results: funded for requested amount

Submitted: Establishment of a State-of-the-Art GIS/Remote Sensing

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Undergraduate research laboratory, 1997, NSF: Instruction and Laboratory Improvement Program, \$41,962, Co-PI

Results: not funded

Submitted: Mobile Bay National Estuary Program Data Management Strategy, 1996, National Estuary Program: Mobile Bay Component, \$41,614, PI with D. Haywick.

Results: funded for requested amount

Submitted: Upgrade of GIS laboratory software and acquisition of GPS instrumentation, USA Arts and Sciences Support and Development Award, 1996, \$1173, PI.

Results: funded for requested amount

Submitted: Acquisition of a transmitted\reflected light petrographic microscope for geological research at the University of south Alabama, NSF Instrumentation and Facilities Program, 1994, \$29,852, Co-PI.

Results: not funded

Submitted: AutoCAD for Windows CAD/GIS software update for department of Geology/Geography GIS workstations, USA Arts and Sciences Support and Development Award, 1994, \$1800, PI with W. Isphording.

Results: funded for requested amount

Submitted: Petrofabric and Geothermobarometric Investigation of Fault Displacement in the Northern Alabama Piedmont, USARC, 1993-1994, \$4120, PI.

Results: funded for requested amount.

Submitted: Modernization of Geology/Geography Department Digitizing Computer Workstation, USA Arts and Sciences Support and Development Award, 1993, \$1094, PI.

Results: funded for requested amount.

Submitted: Characterization of late Paleozoic (Alleghenian) tectonometamorphic development in the southernmost exposed Appalachians. American Chemical Society PRF summer faculty research fellowship, 1993-1994, \$5,000 Co-PI with M. Steltenpohl.

Results: not funded

Submitted: IBM RISC Workstation and AVS software Technology equipment grant. NSF/EPSCoR Program, 1992-1993. \$90,370, Co-PI with J. Madura and D. Haywick

Results: funded.

Submitted: Geothermobarometric investigation of the eastern Blue Ridge of Alabama. Oak Ridge Associated Universities Junior Faculty Enhancement Award, 1991-1993, \$10,000 PI.

Results: not funded.

Publications

Published Peer-reviewed Journal Articles

Drummond, M.S., Neilson, M.J., **Allison, D.T.**, and Tull, J.F., 1997, Igneous Petrogenesis and Tectonic Setting of Granitic Rocks from the eastern Blue Ridge and inner Piedmont, Alabama Appalachians: in GSA memoir 191 *Nature of Magmatism in the Appalachian Orogen*, Mark Drummond and Krisna Sinha ed.s, Geological Society of America, p. 147-164.

Allison, David T., 1995, MAPPRO: a Program for Processing the Projection of Latitude-Longitude Coordinates into Rectangular Map Coordinate Systems: Computers & Geosciences, vol. 21, pp. 859-875.

Allison, D. T., Rupert, F., and Groszos, M.S., 1995, Top of Rock of the Floridan Aquifer System in the Suwannee River Water Management District, Florida: Florida Geological Survey Map Series 84, 8 p.

Drummond, M.S., **Allison, David T.**, and Wesolowski, David J., 1994, Igneous Petrogenesis and Tectonic Setting of the Elkahatchee Quartz Diorite, Alabama Appalachians: Implications for Penobscotian Magmatism in the Eastern Blue Ridge, American Journal of Science, Vol. 294, pp. 173-236.

Groszos, M., Ceryak, R., **Allison, D.T.**, Cooper, R., Weinberg, M., Maceich, M., Enright, M., and Rupert, F., 1992, Carbonate Units of the Intermediate Aquifer System: Suwannee River Water Management District. Florida Geological Survey Open File Report 54 (with map), 22 p.

Drummond, Mark S., Wesolowski, David and **Allison, D.T.**, 1988, Generation, Diversification, and Emplacement of the Rockford Granite, Alabama Appalachians: Mineralogic, Petrologic, Isotopic (C&O), and P-T Constraints, *Journal of Petrology*, Vol. 29, No. 4, pp. 869-897.

Drummond, Mark S., and **Allison, David T.**, 1987, Rockford Granite, Coosa County, Alabama: III. Igneous Petrogenesis and Tectonic Setting: *in* *Granites of Alabama*, M.S. Drummond and N.L. Green editors, Alabama Geological Survey special publication, Tuscaloosa, Alabama, p.33-55.

Moore, W. Bruce, Tull, James F., and **Allison, David T.**, 1987, Intrusive Chronology, Progressive Deformation, and Geochemistry of Granitoid Dikes, and Strain Analysis of Xenoliths, Northern Piedmont, Tallapoosa County, Alabama: *in* *Granites of Alabama*, M.S. Drummond and N.L. Green editors, Alabama Geological Survey special publication, Tuscaloosa, Alabama, p.33-55.

Published Peer-reviewed Guide Book Articles

Rheams, Karen F., **Allison, D.T.**, and Tull, J.F., 1986, Mitchell Dam Amphibolite Along Alabama Highway 22, East-central Chilton and West-central Coosa Counties, Alabama, Decade of North American Geology (DNAG) Centennial Field Guide, Volume 6, Geological Society of America Publications.

Manuscripts in Press

Tull, J.F., **Allison, D.T.**, and Drummond, M.S., 1995, Geology of the Millerville 7.5' quadrangle: submitted December 1995 in map and manuscript form for publication in the Alabama Geological Survey open file report format (in press)

Manuscripts in Review

Allison, D.T., 1999, Position Accuracy and Precision Using GPS Receivers with Commercial FM Differential Correction Services, manuscript submitted to Environmental & Engineering Geoscience editors 8/15/99 (current in review process)

Allison, D.T., 1997, W-SNET: A Windows[®] program for construction of spherical stereographic projection diagrams, manuscript submitted to Computers & Geosciences editor 12/20/97 (currently in review process)

Allison, D.T., Geology of the Richville 7.5' Quadrangle, Alabama, maps submitted

May, 1993, manuscript submitted Sept., 1997, to Alabama Geological Survey. Geologic map and manuscript in open file report format (currently in review process)

Conference Presentations

Allison, David T., 2002, Using thermobarometry to detect fault ramp folding of Acadian isothermal and isobaric surfaces: An example from the Alabama eastern Blue Ridge belt, Geological Society of America Annual Meeting Abstracts with Program, Oct. 27-30, Denver, Colorado, vol. 34, No. 6.

Morisani, Anna, and **Allison, D.T.**, 2002, Plane table mapping projects in field geology courses: Integrating new and old technology: Geological Society of America Annual Meeting Abstracts with Program, Oct. 27-30, Denver, Colorado, vol. 34, No. 6.

Allison, D.T., 2001, Delineating the Effects of Late Paleozoic Deformation of Middle Paleozoic Metamorphic Isograds with Geothermobarometry: Alabama Academy of Sciences, Auburn University, March 28-30.

Allison, D.T., Tull, J.F., and Groszos, M.S., 2000, Deformation of Acadian Geothermobarometric Trends by Alleghanian Structures: Two Case Studies from the Southern Appalachian Blue Ridge: Geological Society of America Annual Meeting Abstracts with Program, Nov. 9-18, Reno, Nevada, vol. 32, No. 7.

Haywick, D.W., Fisher, A.J., Gatewood, M.P., McLaney, G.A., Young, D.M., **Allison, D.T.**, 2000, Hurricanes, Floods and Human Impact: Two years in the life of a Gulf Coast estuary: Geological Society of America Annual Meeting Abstracts with Program, Nov. 9-18, Reno, Nevada, vol. 32, No. 7.

Allison, D., Bersch, M., and Tull, J., 2000, Unraveling the tectonic evolution of the southern Appalachian Blue Ridge Belt using the electron microprobe: Alabama Imaging and Microscopy Society Annual Meeting, May 17-19, Gulf Shores, Alabama.

Allison, David T., 2000, A digital regional geologic map of the northern Alabama Piedmont constructed with GIS: Alabama Academy of Science Annual Meeting 2000, Samford University, March 29-31.

Allison, David T., Tull, James F., 2000, GIS applied to traditional geologic mapping: Why your next geologic map should also be a GIS, Geological Society

of America 2000 Southeastern Section Abstracts with Program, Charleston, S.C., 49th annual meeting, vol. 32, no. 2.

Fisher, A., Gatewood, M., McLaney, G, Young, D., Haywick, D., and **Allison, D.**, 2000, GIS as a means of monitoring sedimentation in Gulf Coast estuaries: Geological Society of America 2000 Southeastern Section Abstracts with Program, Charleston, S.C., 49th annual meeting, vol. 32, no. 2.

Bersch, Michael G., and **Allison, David**, 2000, Microprobe dating of monazite from the southern Appalachians: Trials and tribulations, Geological Society of America 2000 Southeastern Section Abstracts with Program, Charleston, S.C., 49th annual meeting, vol. 32, no. 2.

Haywick, D. W., Fisher, A. J., Gatewood, M. P., McLaney, G. A., Young, D. M., and **Allison, D. T.**, 1999, Hurricanes, Floods and Human Impact: Two years in the life of a Gulf Coast estuary: Geological Society of America Annual Meeting Abstracts with Program, October 25-28, Denver, Colorado, vol. 31, No. 7.

Allison, D., Fisher, A., and Haywick, D., 1999, Weeks Bay Bathymetry? GIS techniques as a means of monitoring water depth changes in coastal embayments: University of South Alabama 6th Annual Research Forum, April 23, University of South Alabama Student Union, Mobile, AL.

Allison, D.T., and Tull, J.F., 1999, Regional geologic map of portions of the Alabama Blue Ridge constructed from digital 1:24,000 quadrangles with AutoCAD[®] Map version 3 GIS: Geological Society of America Abstracts with program, Southeastern section, Athens, Georgia, vol. 31, no. 3, p.A-1.

Grace, Mary L., Haywick, Douglas W., and **Allison, David T.**, 1998, A Sedimentological and GIS Mapping Project for Weeks Bay, Alabama: Geological Society of America 1998 Southeastern Section annual meeting Abstracts with Program, Charleston, West Virginia, March 30-31, Vol. 30, No. 4.

Allison, D.T., and Ispording, W.C., 1998, Application of Shallow Seismic Reflection Methods to Delineate Hydrogeologic Units below the Virginia Street Creosote Remediation Site, Mobile, Alabama: AGWSE Technical Education Program Annual Meeting, Las Vegas, Nevada, December 15-16.

Hardin, C.M., and **Allison, D.T.**, 1998, Constructing and Maintaining Digital Geologic Maps with CAD and GIS: Strategy and Technique, Alabama Academy of Sciences, March 19-20, Section III, University of South Alabama.

Allison, D.T., Tull, J.F., Hardin, C.M., and Burrus, M.K., 1997, Implementation of Geologic Mapping Program using CAD and GIS: Geological Society of America Annual Meeting, Salt Lake City, Utah, October 20-23, vol. 29, no. 6.

Allison, David T., Hardin, Christie M., Taylor, Jennifer T., 1997, Eastern Blue Ridge Geologic Structures in Map View and Cross Section from East-central Alabama: University of South Alabama 4th Annual Research Forum, May 9.

Tull, J.F., **Allison, D.T.**, and Drummond, M.S., 1997, Geology of the Millerville 7.5 Minute Quadrangle, on the eastern-western Blue Ridge boundary, Alabama, Geological Society of America Southeastern Section Meeting, Auburn, Alabama, March 27-28, Vol. 29., No. 3.

Allison, D.T. and Isphording, W.C., 1997, Use of shallow seismic reflection in remediation of creosote leakage site in Mobile County, Alabama, Geological Society of America Southeastern Section Meeting, Auburn, Alabama, March 27-28, Vol. 29, No. 3.

Allison, D.T., Groszos, M.S., Tull, J.F., 1996, Geothermobarometric Analysis of the Murphy Belt Structural Evolution, Alabama Academy of Sciences, March 6-9, Section III, Tuskegee University.

Allison, D.T., Isphording, W.C., Flowers, G.C., and Smith, S., 1996, Comparison of traditional versus GPS survey methods: technique and results, Geological Society of America National Meeting, Denver, Colorado, Oct. 29- Nov. 1, Vol. 28, Number 7.

Allison, D.T., Groszos, M.S., Tull, J.F., and Li, L., 1996, Geometry of Metamorphic Isograds and Results of Geothermobarometric Studies within the Georgia western Blue Ridge, southern Appalachians: Geological Society of America Southeastern Section Meeting, Jackson, Mississippi, vol. 28, no.2, February.

Allison, D.T., Groszos, M.S., and Tull, J.F., 1996, Metamorphic mineral composition and estimates of peak temperature and pressure from Blue Ridge lithologies of Alabama and Georgia, Alabama Imaging and Microscopy Society 15th Annual Meeting, Perdido Beach Resort, Orange Beach, Alabama, February 29- March 1.

Allison, D.T., Groszos, M.S., and Tull, J.F., 1995, Tectonic Significance of Geothermobarometric Studies in the Murphy Belt, southern Appalachians:

Geological Society of America Abstracts with Programs, National Meeting, New Orleans, LA, vol. 27, November.

Allison, D.T., Tull, J.F., and Drummond, M.S., 1994, Application of Computer Technology to the Production of Geological Maps: Case examples from the Blue Ridge of Alabama. University of South Alabama Research Forum, University of South Alabama Research Council.

Allison, D.T., Tull, J.F., and Drummond, M.S., 1994, Application of Computer Technology to the Production of Geological Maps: Case examples from the Blue Ridge of Alabama. Geological Society of America Abstracts with Programs, Southeastern Section, Blacksburg, VA, vol. 26.

Allison, D.T. and Drummond, M.S., 1992, Structural Framework of the Elkahatchee Batholith and Country Rock, Northern Alabama Piedmont, Geological Society of America Abstracts with Programs, Southeastern Section, Winston-Salem, NC, vol. 24.

Drummond, M.S. and **Allison, D.T.**, 1990, The Southern Half of the Ashland-Wedowee Belt, Northern Alabama Piedmont: Recent Geological Mapping and Structural Analysis, Geological Society of America Abstracts with Programs, Southeastern Section, Tuscaloosa, AL, vol 22.

Allison, David T., 1989, Stratigraphic Evidence for a More Simplified Tectonostratigraphic Framework in the Eastern Blue Ridge of Alabama: Geological Society of America Abstracts with Programs, Southeastern Section, Atlanta, GA, vol. 21.

Allison, D.T. and Drummond, M.S., 1989, Evidence for Biotite-Garnet control on Migmatite Formation to Produce Aluminous Granites in the Eastern Blue Ridge of Alabama: Geological Society of America Abstracts with Programs, Southeastern Section, Atlanta, GA, vol. 21.

Allison, D.T., 1988, Computer-aided Structural Analysis: NETPROG, a FORTRAN Program for the Rapid Analysis of Structural and Petrofabric Data: Geological Society of America Abstracts with Programs, Southeastern Section, Columbia, SC, vol. 20.

Tull, J.F., Moore, W.B., Drummond, M.S. and **Allison, D.T.**, 1986, Contrasting Fault Systems in the Crystalline Appalachians of Alabama: Geological Society of America Abstracts with Programs, Southeastern Section, vol. 18.

Drummond, M.S. and **Allison, D.T.**, 1985, Quantitative Estimates of Metamorphic Equilibria: Northern Alabama Piedmont, Geological Society of America Abstracts with Programs, Southeastern Section, Knoxville, TN, vol. 17.

Allison, D.T., Ragland, P.C., Conley, J.F. and Odom, A.L., 1984, The Martinsville Igneous Complex of the Smith River Allochthon- An Andean Plutonic Suite: Geological Society of America Abstracts with Programs, Southeastern Section, Lexington, KY, vol. 16.

Allison, D.T., 1983, Possible Genetic Relationship Between the Rockford-type Granites and the Bluff Springs Granite: Geological Society of America Abstracts with Programs, Southeastern Section, Tallahassee, FL, vol. 15.

Allison, D.T. and Drummond, M.S., 1982, Abstracts: Exploration Potential, Geologic Setting, and Petrogenesis of the Alabama Tin Belt: Southeast Mining and Minerals Conference, University of Georgia, Department of Geology and Continuing Education Symposium.

Professional Development Activities

Application of GPS in the Earth Sciences, Geological Society of America Pre-meeting Course, 1996 Annual Meeting, University NAVSTAR Consortium (UNAVCO), Boulder, Colorado, October 27, 1996

GIS and the Geosciences, Geological Society of America Pre-meeting Course, Annual Meeting, New Orleans, Louisiana, November 5, 1995

New Directions in Structural Geology, Geological Society of America Pre-meeting Course, Southeastern Section Meeting, Reston, Virginia, April 6-7, 1993

Arc/Info Geographic Information Systems Short Course, University of Georgia Center for Remote Sensing and Mapping Science, Athens, Georgia, August 9-11, 1993

Federal Funding Opportunities Conference, University of Alabama College of Continuing Education, Bryant Conference Center, August 31- September 1, 1992

Writing Across the Curriculum Seminar, Brookley Center, University of South Alabama, September 15-16, 1991

Research Activity

Application of Autonomous GPS to Collection of Geoscience Field Data with Reference Frame Resolution of 5 Meters or Less: in collaboration with Wayne C. Isphording, University of South Alabama, and Carl Ulmer, Rockwell International. GPS receivers provided on consignment by Rockwell International. Field data collected from activity Spring of 1996 to present.

Geothermobarometric Controls on the Deformation of the Murphy Belt Syncline, Northern Georgia Blue Ridge: in collaboration with James Tull and Mark Groszos, Florida State University. Preliminary field sampling and geologic mapping complete. Microprobe analysis of samples 1995-1997.

Detailed Geologic Mapping of the Higgins Ferry Group Metasediments, Southern Structural Salient of the Coosa Structural Block, Northern Alabama Piedmont: principle investigator. Funded by 1993-1994 USARC grant. Field study phase 1994 to present. Microprobe analysis of samples 1994 to present.

Investigation of Late Paleozoic to Early Mesozoic Fault Translation in the Northern Alabama Piedmont: in collaboration with Dr. Mark Steltenpohl, Auburn University Department of Geology. Field data collection 1994-1997. Microprobe analysis 1995 to present.

Elkahatchee Mapping and Geochemical Analysis Project: in collaboration with M.S. Drummond, University of Alabama Birmingham. Funded by the American Chemical Society, structure data collection and analysis 1992-1994.

Other

Development of Summer field GY480 course in the Llano, Texas, and Taos, New Mexico, vicinity (1995-1997)

Seismic Reflection Project for the University of South Alabama Campus Property (1992-1994)

Organization of GIS computer laboratory including acquisition of 48"x36" electronic digitizer, large-format (48"x36") color inkjet plotter, three Pentium-class GIS workstations (1992-1997)

GY113 Honors Field Geoscience course proposal (approved April 2000)

Current Academic/Professional Association Memberships and Licenses

Geological Society of America, Member

Alabama Board of Licensure for Professional Geologists, License #922

Geological Society of America, Structure and Tectonics division, Member

Sigma Gamma Epsilon Earth Sciences Honorary, Faculty Advisor and Member

Alabama Geological Society, Member

Georgia Geological Society, Member

Mineralogical Society of America, Member

Alabama Imaging and Microscopy Society

Courses Taught at the University of South Alabama

GY11 Earth Materials (including laboratory)

GY113 Honors Field Geology

GY341 Crystallography (including laboratory)

GY343 Petrology (including laboratory)

GY360 Structural Geology (including laboratory)

GY461 Computer Mapping & GIS Technology (including laboratory)

GY480 Field Course

GY492 Special Topics

GY494 Directed Studies