

James C. Coogan

Curriculum Vitae

Fall, 2007

EDUCATION

- 1992 University of Wyoming, Laramie, WY, Ph.D. in Geology
Dissertation Title: Thrust systems and displacement transfer in the Wyoming-Idaho-Utah thrust belt.
Curriculum: Structural Geology, Basin Analysis, Seismic Interpretation and Processing.
- 1983 University of North Wales / Robertson Research, Llandudno, UK,
Advanced field geology in the British Isles
- 1981 College of William and Mary, Williamsburg, VA, B.S. in Geology

EMPLOYMENT

- 2002 - Present Rady Chair in Petroleum Geology, Western State College of Colorado, Gunnison, CO
- 1999 – 2002 Senior Geologist, Anschutz Exploration Corporation, Denver, Colorado
- 1992 - 1999 Consulting Petroleum Geologist, Lakewood, CO: for Mobil E&P Egypt, Mobil E&P Peru, Mobil E&P, Argentina, Mobil E&P US, Petral Exploration, Energy Investments, Great Northern Oil and Gas.
- 1993 - 1996 Research Associate, Dept. of Geosciences, University of Arizona, Tucson, AZ
- 1991 - 1992 Exploration Geologist, Mobil Exploration and Producing U.S., Denver, CO
- 1990 Geologist, Arco Alaska, Anchorage, AK
- 1985 - 1989 Instructor, University of Wyoming, Laramie, WY
Physical Geology (undergraduate 1989)
Structural Geology for Engineers (undergraduate 1986, 1987, 1988, 1989)
Structural Photo Interpretation and Mapping (undergraduate/graduate 1986, 1987)
- 1986 Geologist, Chevron U.S.A., Denver, CO
- 1984 Geologist, Sohio Petroleum Company, Denver, CO
- 1981 - 1983 Geophysical Assistant, Sohio Petroleum Company, Denver, CO

RECENT GRANTS and CONTRACTS

- 2007 National Science Foundation - Determining the displacement field of the Wyoming salient: implications for fold-thrust belt kinematics (with W.A. Yonkee, Weber State University, A. Weil, Bryn Mawr College, A.J. Sussman, Los Alamos National Lab.
- 2006 Western State College Professional Activity Fund - travel grant for petroleum geology recruitment.
- 2006 Colorado Geological Survey – Geologic map of the Signal Peak quadrangle, Gunnison County, Colorado – with Allen Stork, Robert Fillmore, and Holly Brunkal.
- 2005 Colorado Geological Survey – Geologic Map of the Gunnison quadrangle, Gunnison County, Colorado – with Allen Stork.
- 2004 Colorado Geological Survey – Geologic map of the Almont quadrangle, Gunnison County, Colorado – with Allen Stork and Robert Fillmore.

PUBLICATIONS (*denotes student co-author)

- Coogan JC , and DeCelles. PG, 2007, Regional structure and kinematic history of the Sevier fold-and-thrust belt, central Utah: Geological Society of America Bulletin: REPLY: v. 119, p. 508-512.
- Stork, A., Coogan, J.C., Fillmore, R.F., Nicollette, J.*, and Payton, A.*, 2007, Geologic Map of the Signal Peak Quadrangle, Gunnison County, Colorado, Colorado Geological Survey Open File Report 07-3, scale 1:24,000.
- DeCelles PG, and Coogan JC , 2006, Regional structure and kinematic history of the Sevier fold-and-thrust belt, central Utah: Geological Society of America Bulletin v. 118, p. 841-864.
- Stork, A., Coogan, J.C., Csar, A.*, and Wentz, R.*, 2006, Geologic Map of the Gunnison Quadrangle, Gunnison County, Colorado, Colorado Geological Survey Open File Report 06-04, scale 1:24,000.
- Coogan, J.C., and King J.K., 2006, Interim geologic map of the Durst Mountain quadrangle, Morgan and Weber Counties, Utah: Utah Geological Survey Open-File Report 498, scale 1:24,000.
- Coogan, J.C., 2006, Interim geologic map of the Horse Ridge quadrangle, leading margin of the Willard thrust sheet, Morgan, Rich and Weber Counties, Utah: Utah Geological Survey Open-File Report 480, scale 1:24,000.
- Coogan, J.C., 2006, Interim geologic map of the Dairy Ridge quadrangle, leading margin of the Willard thrust sheet, Cache, Rich and Weber Counties, Utah: Utah Geological Survey Open-File Report 479, scale 1:24,000.
- Coogan, J.C., Stork, A., and Fillmore, R.F, 2005, Geologic Map of the Almont Quadrangle, Gunnison County, Colorado, Colorado Geological Survey Open File Report 05-5, 27 p., 2 pl., scale 1:24,000.
- Constenius, K.N., and Coogan, J.C., 2004, Progress report geologic map of the east part of the Provo 30' x 60' quadrangle, Utah (year 4 of a multi-year project), Utah: Utah Geological Survey, Open File Report 439, 16 p., 1 pl., scale 1:62,500.
- Coogan, J.C., 2004, Interim geologic map of the Francis Canyon quadrangle, Lost Creek drainage, Morgan, Rich, and Summit Counties, Utah: Utah Geological Survey, Open File Report OFR-425, 10 p., 1 pl., 1:24,000.
- Coogan, J.C., 2004, Interim geologic map of the Lost Creek Dam quadrangle, Lost Creek drainage, Morgan and Weber Counties, Utah: Utah Geological Survey, Open File Report OFR-426, 10 p., 1 pl., 1:24,000.
- Coogan, J.C., 2004, Interim geologic map of the Peck Canyon quadrangle, Lost Creek drainage, Morgan and Rich Counties, Utah: Utah Geological Survey, Open File Report OFR-427, 10 p., 1 pl., 1:24,000.
- Coogan, J.C., and Constenius, K.N., 2002, Progress report - Geologic map of the Provo 30' x 60' quadrangle, Utah - year 2 of 3: Utah Geological Survey, Open File Report 400, scale 1:100,000.
- Coogan, J.C., and King J. K., 2001, Progress report: Geologic map of the Ogden 30' x 60' quadrangle, Utah and Wyoming, year 3 of 3: Utah Geological Survey, Open File Report 380, 30 p., scale 1:100,000.
- Coogan, J.C., and DeCelles, P.G., 1998, REPLY: Extensional collapse along the Sevier Desert reflection, northern Sevier Desert Basin, western United States: Geology, v. 26, p.475.
- Coogan, J.C., 1997, Geologic map of the Bear Lake South quadrangle, Rich County, Utah: Utah Geological Survey Miscellaneous Publication 97-1, 16 p., 3 plates, map scale 1:24,000, cross section scale 1:48,000.
- Coogan, J.C., 1997, Geologic map of the Sheeppen Creek quadrangle, Rich County, Utah: Utah Geological Survey Miscellaneous Publication 97-2, 17 p., 3 plates, map scale 1:24,000, cross section scale 1:48,000.
- Yonkee, W. A., DeCelles, P., Coogan, J., 1997, Kinematics and synorogenic sedimentation of the eastern frontal part of the Sevier orogenic wedge, northern Utah: Brigham Young University Geology Studies, v. 42, part 1, p. 355-380.
- Camilleri, P, Yonkee, A., Coogan, J., DeCelles, P., McGrew, A., and Wells, M., 1997, Hinterland to foreland transect through the Sevier Orogen, Northeast Nevada to North central Utah: structural style, metamorphism, and kinematic history of a large contractional orogenic wedge: Brigham Young University Geology Studies, v. 42, part 1, p. 297-309.
- Van Kooten, G.K., Watts, A.B., Coogan, J., Mount, V.S., Swenson, R.F., Daggett, P.H., Clough, J.G., Roberts, C.T., and Bergman, S.C., 1997a, Geologic investigations of the Kandik area, Alaska, and adjacent Yukon Territory, Canada: Alaska Division of Geological and Geophysical Surveys Report of Investigations 96-6a, scale 1:250,000.

- Van Kooten, G.K., Watts, A.B., Coogan, J., Mount, V.S., Swenson, R.F., Daggett, P.H., Clough, J.G., Roberts, C.T., and Bergman, S.C., 1997b, Station locations in the Kandik area, Alaska, and adjacent Yukon Territory, Canada: Alaska Division of Geological and Geophysical Surveys Report of Investigations 96-6b, scale 1:250,000.
- Van Kooten, G.K., Watts, A.B., Coogan, J., Mount, V.S., Swenson, R.F., Daggett, P.H., Clough, J.G., Roberts, C.T., and Bergman, S.C., 1997c, Gravity maps of the Kandik area, Alaska, and adjacent Yukon Territory, Canada: Alaska Division of Geological and Geophysical Surveys Report of Investigations 96-6c, scale 1:250,000.
- Coogan, J.C., and DeCelles, P.G., 1996, Extensional collapse along the Sevier Desert reflection, northern Sevier Desert Basin, western United States: *Geology*, v. 24, p.933-936.
- DeCelles, P.G., Pile, H.T., and Coogan, J.C., 1993, Kinematic history of the Meade thrust based on provenance of the Bechler Conglomerate at Red Mountain, Idaho, Sevier thrust belt: *Tectonics*, v. 12, p. 1436-1450.
- Coogan, J.C., 1992, Structural evolution of piggyback basins in the Wyoming-Idaho-Utah thrust belt, *in* Link, P.K.; Kuntz, M. A., and Platt, L.B., *Regional Geology of eastern Idaho and western Wyoming*: Geological Society of America Memoir 179, p. 55-81.
- Coogan, J.C., and Royse, F., Jr., 1990, Overview of recent developments in thrust belt interpretation, *in* Roberts, S., ed., *Geologic field tours of western Wyoming and adjacent Idaho, Montana, and Utah*: Geological Survey of Wyoming Public Information Circular 29, p. 89-124.
- Huntoon, P.W., and J.C. Coogan, 1987a, Siphon-induced intermittent discharge: *EOS*, v. 68, no. 26, p. 610, 616.
- Huntoon, P.W., and J.C. Coogan, 1987, The strange hydrodynamics of Periodic Spring, Salt River Range, Wyoming, *in* Miller, W.R., ed., *The thrust belt revisited*: Wyoming Geological Association, p. 337-345.
- Heller, P.L., Bowdler S.S., Chambers H.P., Coogan, J.C., Hagen, E.S, Shuster, M.W., Winslow, N.S., and Lawton, T.F., 1986, Time of initial thrusting in the Sevier orogenic belt, Idaho, Wyoming, and Utah: *Geology*, v. 14, p. 388-391.
- Coogan, J.C., and W.A. Yonkee, 1985, Salt detachments in the Jurassic Preuss Redbeds within the Meade and Crawford thrust systems, Idaho and Wyoming, *in* Kerns, G.J., and R.L. Kerns, eds., *Orogenic patterns and stratigraphy of north-central Utah and southeastern Idaho*: Utah Geological Association Publication 14, p. 75-82.

ABSTRACTS (*denotes student co-author)

- Yonkee, A., Weil, A., Coogan, J.C., and Sussman, A., 2007, Three dimensional kinematic evolution of the Wyoming salient, Sevier orogenic belt: *Geological Society of America Abstracts with Programs*, Vol. 39, No. 6, p. 93.
- Tully, J.E.*, Lageson, D.R., and Coogan, J.C., 2007, New Structural Interpretation of the Elk Range Thrust system, southwest Colorado: *Geological Society of America Abstracts with Programs*, Vol. 39, No. 6, p. 52
- Coogan, J.C., 2007, Extensional inversion of the central Utah thrust belt: more than just the Sevier Desert detachment: *American Association of Geologists, Rocky Mountain Section Meeting Abstracts with Program*, p. 36.
- Tully, J.E.*, Lageson, D.R., and Coogan, J.C., 2007, New Structural Interpretation of the Elk Range Thrust system, southwest Colorado: *American Association of Geologists, Rocky Mountain Section Meeting Abstracts with Program*, p. 58.
- Coogan, J.C., Stork, A., and Fillmore, R.F, 2006, Laramide through Neogene structural inheritance of Ancestral Rockies fault and fold trends near Almont, Colorado: *Geological Society of America Rocky Mountain Section Abstract*
- Fletcher, J M., Coogan, J., Benson, C.W.*, Csar, A.J.*, Gullett, C.J.*, Oliver, S.R.*, and Teran, O.J.*, 2006, Role of tectonic inheritance and mode of continental extension in the upper Rio Grande rift: *Geological Society of America Rocky Mountain Section Abstract*
- Coogan, J.C., 2001, Regional thrust network in Wyoming, northern Utah, and southeast Idaho: revisions to correlation, structural style, timing, and shortening:: *Structural Traps and Fractured Reservoirs of the Rocky Mountain Region, Rocky Mountain Association of Geologists Symposium Abstracts*.

- Coogan, J.C., DeCelles, P.G., Mitra, G., and Sussman, A., 1995, New regional balanced cross section across the Sevier Desert region and the central Utah thrust belt, Geological Society of America Abstracts with Program, v. 27, n. 4
- Mitra, G., and Sussman, A., DeCelles, P.G., and Coogan, J.C., 1995, Structural evolution of the Canyon Range, central Utah orogenic wedge: implications for critical taper during thrusting, Geological Society of America Abstracts with Program, v. 27, n. 4
- Coogan, J.C., 1994, Mixed-mode and synchronous thrust kinematics, Hogsback duplex system, western Wyoming: Geological Society of America Abstracts with Programs, v.26, n.7, p. 527.
- Coogan, J.C., 1993, Geologic mapping delineates new thrust sheets, duplex structures, and timing relationships between the Meade and Crawford thrusts in Wyoming, Idaho, and Utah: Geological Society of America Abstracts with Programs, v.25, n.5.
- Coogan, J.C., 1992, Wedge taper maintenance and basement-cover balance in a foreland-younging thrust sequence: Geological Society of America Abstracts with Programs, v.24, n.7, p. 363.
- Coogan, J.C., 1989, Distinguishing reactivated thrust slip vs. footwall uplift sedimentation patterns in hangingwall basins: Fossil Basin and Bear Lake Plateau, WY-ID-UT thrust belt: Geological Society of America Abstracts with Programs, v. 21, n. 6. p. 366.
- Coogan, J.C., 1987, Thrust systematics and displacement transfer in the Wyoming-Idaho-Utah thrust belt: Geological Society of America Abstracts with Programs, v.19, n.7, p.626.
- Coogan, J.C., and S.E. Boyer, 1985, Variable shortening mechanisms in thrust belts and implications for balanced cross section construction; an example from the Idaho-Wyoming thrust belt: Geological Society of America Abstracts with Programs, v. 17, n.7, p.552.

INVITED PRESENTATIONS

- 2007 Rast-Holbrook Seminar, University of Kentucky, Lexington, KY
 “Geometric and kinematic evolution of the type Sevier fold-thrust belt of central Utah with implications for the Sevier Desert Detachment controversy and remaining hydrocarbon potential.”
- 2006 Devon Energy Corporation, Oklahoma City, OK
 “Comparison of Thrust Belt Hydrocarbon Systems of the North American Cordillera: The Central Utah Anomaly”
- 2006 Exxon Mobil US New Opportunities, Houston, TX
 “Comparison of Thrust Belt Petroleum Systems of the North American Cordillera: The Central Utah Anomaly”
- 2006 Talisman Energy, Calgary, Alberta
 Field Trip Leader, central Utah thrust belt
- 2006 Explorers Club, Denver, CO
 “Comparison of Thrust Belt Petroleum Systems of the North American Cordillera: The Central Utah Anomaly”
- 2005 Exxon Mobil Upstream Research Company, Houston, TX
 Field Trip Leader, Wyoming-Idaho-Utah thrust belt
- 2005 Exxon Mobil Production Company, Houston, TX
 Structural Interpretation Workshop, Wyoming-Idaho-Utah thrust belt
- 2003 AAPG Annual Meeting, Salt Lake City, UT
 Field Trip Leader, Structural continuity of the Sevier thrust belt across the Uinta arch. (with K.N. Constenius).
- 2002 Anadarko Petroleum Company, Houston, TX
 Field Trip Leader, Field Investigation of Structure and Sedimentation in the Sevier thrust belt, northern Utah, western Wyoming, and southeastern Idaho: Salt lake City, UT to Jackson, WY.
- 1998 AAPG Annual Meeting, Salt Lake City, UT
 Field Trip Leader, Coupled structure and sedimentation through 100 m.y. of thrust wedge evolution, Sevier thrust belt, northern Utah and western Wyoming. (with P.G. DeCelles).
- 1997 GSA Annual Meeting, Salt Lake City, UT
 Field Trip Leader, Kinematics and synorogenic sedimentation of the eastern frontal part of the Sevier orogenic wedge, northern Utah (with W.A. Yonkee and P.G. DeCelles).
- 1992 Montana College of Mineral Science and Technology, Butte MT

- Structural evolution of piggyback basins, Wyoming-Idaho-Utah thrust belt.
Thrust systems and displacement transfer in the Wyoming-Idaho-Utah thrust belt.
1992 Rocky Mountain Association of Geologists, Denver CO
Thrust systems and displacement transfer in the Wyoming-Idaho-Utah thrust belt.
- 1992 Colorado School of Mines, Golden CO
Structural evolution of piggyback basins, Wyoming-Idaho-Utah thrust belt.
- 1990 GSA Rocky Mountain Section, Jackson, WY
Field Trip Leader, Overview of recent developments in thrust belt interpretation (with F. Royse, Jr.).
- 1989 28th International Geological Congress
Local Field Trip Leader, Yellowstone and Grand Teton National Park and the Middle Rocky Mountains (with J.D. Love).
- 1988 British Petroleum Company, Basin Research Group, London, UK
Field Trip Leader, Cretaceous foreland basin, Salt Lake City, Utah to Casper Wyoming