

## CIRRICULUM VITAE

*May 2009*

### **BAIRD, GORDON CARDWELL**

**BIRTHPLACE AND DATE:** Rochester, New York, October 6, 1946

**CITIZENSHIP:** U.S.A.

**EDUCATION:** B.A. - Earlham College, 1969  
M.S. (Geology) - University of Nebraska, 1971  
Ph.D. (Geology) - University of Rochester, 1975

**AREA OF SPECILIZATION:** Paleontology, chronostratigraphy, sedimentology, basin history and basin evolution.

**POSITIONS:** State University of New York at Binghamton: postdoctoral research associate, 1975-1976.  
Field Museum of Natural History: Assistant Curator of Fossil Invertebrates, Aug. 1976-Dec. 1981.  
State University College, Fredonia, New York: Assistant Professor of Geology, 1982-1988; promoted to Associate Professor (9/88) and to Full Professor (9/95).

**GRANTS:** NSF GRANT 257-029 (with E.S. Richardson, Jr.) Paleocology of the Mazon Creek biota. Total grant \$50,000 for two years (1/1/79-1/11/81). Principal investigator.  
American Chemical Society (Petroleum Research Fund) Summer Fellowship. Part of Grant (PRF 141-71-G2) received by Carlton Brett (University of Rochester). Fellowship total \$4,000 for two years (11/82-11/84).  
NSF grant accepted (with C.E. Brett: principal investigator) Episodic sedimentary events in the Middle Devonian Hamilton Group of Western and Central New York. Total grant \$115,000 for two years 8/1/84-7/31/86).  
NSF grant EAR 88 16856 accepted (with C.E. Brett: principal investigator) 6/88. Small-scale depositional sequences in a Middle Devonian

foreland basin. Total grant \$99,000 for two years - \$7,860 summary salary for Baird.

American Chemical Society (Petroleum Research Fund) summer fellowship. Part of grant received by Carlton Brett and David Lehmann (University of Rochester). Sequence stratigraphy and syntectonic sedimentation, Middle-Upper Ordovician, northern Appalachian Basin. \$4,000 for Baird for two years (1991-1993).

American Chemical Society (Petroleum Research Fund) summer fellowship. Part of grant received by Carlton Brett (University of Rochester). Dynamic stratigraphy and physical sedimentation of Middle Paleozoic black shales, northern Appalachian Basin. \$5,000 for Baird for two years (1993-1995).

Received \$2,783 for contractual stratigraphic mapping work (STATEMAP program) for the New York Geological Survey for mapping in the South Onondaga 7.5' Quad (7/14/94-8/13/94), with C.E. Brett.

American Chemical Society, Petroleum Research Fund (Berkley, J.L. Principal Investigator, Baird Co-Pi), Regional character and depositional-diagenetic history of altered ash beds, Mohawk Valley, New York, submitted autumn, 1997, support declined.

STATEMAP project (cooperative mapping program between N. Y. S. Geological Survey and U. S. Geological Survey). Funded proposal to produce a bedrock map of Marcellus and Jamesville 7.5' Quadrangles. Eight days of bedrock mapping completed in September 1, 1998 - October 1, 1998 period. \$1,786.00 for Baird.

STATEMAP project funded proposal to produce a bedrock map of the Skaneateles and Spafford 7.5' Quadrangles. Seven days of mapping completed in early August, 1999. \$1,500 for Baird.

NSF Proposal 9987917 (D. J. Over Principal Investigator, G. C. Baird, J. E. Day, W. Kirchgasser Co-pi's), Integrated Upper Devonian biostratigraphy and sequence stratigraphy in carbonate and clastic environments. Total grant \$246,750 for two years (support declined 3/00).

Baird received \$2,200 to cover travel expenses to Morocco as a research assistant (period 03/13/07 – 03/26/07) as part of a larger multi-person expeditionary project (National Geographic CRE grant entitled “Death in the Devonian: the paradox of rhythmic nodular trilobite beds” – Carlton Brett Principle Investigator).

Baird made a commitment in June, 2006 to procure funds to support exchange of scholars (lodging-*per-diem* issues) in late 2006 and 2007 as part of a German grant proposal (Deutscher Akademischer Austausch Dienst = DAAD agency).

ORGANIZATIONS:

Geological Society of America

Society of Economic Paleontologists and Mineralogists

Paleontological Society

Sigma Gamma Epsilon

Sigma Xi

Chairperson, Planning and Budget Committee, SUNY Fredonia. (Also, chaired steering committee charged with preparation of the 1990 Middle States accreditation report for SUNY College, Fredonia), Jan. 1988 - Dec. 1989.

TEACHING EXPERIENCE:

Presently teach undergraduate students in the State University of New York (SUNY) College at Fredonia; courses taught so far include:

Introductory Courses:

GEO 100	Earth Science, 3 credit hours
GEO 110	General Geology, 3 credit hours
GEO 125	Physical Geology, lab, 1 credit hour
GEO 130	Mineral, rock and fossil identification lab, 1 credit hour
GEO 140	Map interpretation lab, 1 credit hour
Geo 140 (renamed)	Catastrophic Weather minicourse, 1 credit hour
GEO 141	Age of Dinosaurs, 1 credit hour
GEO 143	Evolution of Life, 1 credit hour
GEO 145	Geology of New York State, 1 credit hour
GEO 165	Physical Geology, 3 credit hours

GEO 210 Historical Geology, 3 and 4 credit hours

Advanced Undergraduate:

GEO 325 Geology of North America - part of course pertaining to cratonic interior, 0.7 credit hours

GEO 329 Regional Field Geology (field course), 2 credit hours

GEO 345 Paleontology: lecture plus lab, 4 credit hours

GEO 360 Senior Seminar, 1 credit hour

GEO 465 Paleoenvironments (lecture), 3 credit hours

GEO 471 Senior Thesis, 1 credit hour

GEO 481 Special Topics: New York State Geology, 2 credit hours

GEO 485 Special Topics: Petroleum Geology, 3 credit hours

Graduate:

GL 580 Special Topics in Geology: Depositional Environments (seminar-discussion), 3 credit hours

GL 590 Special Topics in Geology: Graduate reading course (seminar-discussion), 3 credit hours

Graduate student Walter Meyer completed a Masters thesis entitled "Paleodepositional environments of the Stafford Limestone (Middle Devonian) across New York State" under my supervision during 9/83-12/85 period.

Graduate student Stephen Mayer completed a Masters thesis entitled "Stratigraphy and paleontology of the Jaycox Scale Member, Hamilton Group of the Finger Lakes Region of New York State" under my supervision during 1/88-6/89 period.

Served on thesis evaluation committee for doctoral students Keith Miller (11/85), David Lehmann (5/92) and Wendy Taylor (6/96) at the University of Rochester.

Served on a thesis evaluation committee for doctoral student Steven Sroka (10/95) at the University of Illinois, Urbana, Illinois.

Served in adjunct advisory capacity for graduate student Jay Zambito (University at Buffalo: Masters Program in Geology). Jay completed a paleobiological study of the brachiopod *Ambocoelia umbonata* in western New York Devonian deposits. He also initiated (with Baird) a study of K-bentonite diagenesis and tectonic alteration during the same period (02/05-08/06).

OTHER PROFESSIONAL ACTIVITY:

Worked with F.T. Fursich and A. Seilacher in Germany at the University of Tübingen (5/74-8/74) as part of the study for the doctorate at the University of Rochester. Research in Germany involved field study of Lower Jurassic fossils and event-beds.

Supervised full-time assistant Peter Mundel (N.S.F. supported) working on the Mazon Creek Project (January 1980 - April 1981). Two Antioch undergraduate interns worked on this project (January - June 1979).

Supervised a total of 15 volunteers helping with Pennsylvanian research in Illinois. Presented lectures to amateur geology clubs and conducted paleontology field trips for several Illinois educational institutions including the University of Chicago.

Empire State Program: taught paleontology to evening students (lecture and lab). Fall 1984

Presented poster display entitled "Mazon Creek Biota: Pennsylvanian Lagerstätten in Illinois" (February 1985) at a discussion meeting "Extraordinary fossil biotas: their ecological and evolutionary significance" held at the Royal Society of London (with Shabica, C.W.).

Presented poster display entitled "Submarine discontinuities flooring black shale deposits, Devonian of New York State" at the Geological Society of London, May 1989 (with C.E. Brett).

Coordinated 71<sup>st</sup> Annual New York State Geological Association Annual Field Conference hosted by SUNY Fredonia. Eleven field trips and workshops were run as part of the meeting and a banquet and mixers were key evening events. Baird led one field trip and co-led another (10/1/99 - 10/3/99).

Co-led field trips covering various aspects of New York State sedimentary geology as part of annual fall intercollegiate field conference of the New York State Geological Association (see also PUBLICATIONS):

- 1974 Middle-Late Devonian of Erie County (with C.E. Brett)
- 1981 Middle Devonian of Cayuga Valley (with C.E. Brett)
- 1982 Middle-Late Devonian of Erie County (with C.E. Brett)
- 1986 Middle Devonian of Cayuga Valley (with C.E. Brett)
- 1986 Middle Devonian of Cayuga Valley (with C.E. Brett and K. Miller)
- 1990 Middle Devonian of Chautauqua County (with G. Lash)
- 1992 Middle Ordovician of central New York (with C.E. Brett)
- 1994 Middle Devonian of Genesee Valley (with C.E. Brett)
- 1999 Middle Devonian of western New York (with C.E. Brett and C. Ver Straeten)
- 1999 Middle-Upper Devonian of western New York (with R. Jacobi and D.J. Over)
- 2000 Middle Devonian of central and western New York (with C.E. Brett and C. Ver Straeten)
- 2003 Middle Devonian of east-central New York (with C.E. Brett and A.J. Bartholomew)
- 2006 Middle/Late Devonian of western New York (with C.E. Brett, W.T. Kirchgasser and D.J. Over)
- 2007 Middle Devonian of western New York (with J.J. Zambito, A.J. Bartholomew, and C.E. Brett)

Co-led field trip to Mazon Creek-area fossil localities as part of the North-Central Section Meeting of the Geological Society of America at Macomb, Illinois (April 24-25, 1990).

During period 07/01/02 – 08/03/02 Baird visited New Zealand and Australia as an attendee and abstract presenter at the First International Palaeontological Congress held in Sydney, Australia. Baird presented a paper on July 10 and chaired part of a day-session “Global Extinction Events” on the same date. Baird attended three week-long, meeting-related field trips linked to the meeting. These include, in sequential order:

Mesozoic and Cenozoic fauna and landscapes, North Island of New Zealand (29 June – 4 July, 2002)

Palaeozoics of NE Queensland: Broken River region (11- 17 July, 2002)

Devonian Reef Complexes of the Canning Basin, Western Australia (20 – 27 July, 2002)

In addition, Baird visited the renowned occurrence of modern stromatolites at Hamelin Pool, Shark Bay, Western Australia (29 – 30 July, 2002)

Served as President of the northeastern section of the Paleontological Society March 1990 - March 1991; chaired a theme session at the northeast section of the Geological Society of America at Baltimore (with C.E. Brett) - the session (March 16, 1991) was entitled "Taphonomy and paleoecology of dysaerobic and exaerobic environments."

Undertook a 15-day trip to western Siberia to attend the international conference on the Devonian System held in Novosibirsk (July 23, 2005 – August 08, 2005). This involved presentation of one paper and inclusion as junior author on two others, plus participation on an eleven-day field trip to Devonian marine sections in southern Siberia. A key outcome of this meeting was the submission of a short paper to the German journal *Senckenbergiana* in April, 2006 (see below). As part of this same trip, Baird worked in Germany for five days with my colleague Carlton Brett (Univ. Cincinnati) and several German Paleontologists associated with the Senckenberg Institute in Frankfurt (Aug. 10-14). Finally, Baird attended an international conference on the Silurian System on the island of Gotland, Sweden and participated on the post-conference field trip (Aug. 15-22, 2005).

Worked on renown Early/Middle Devonian trilobite-bearing deposits on a joint National Geographic Society- and German Senckenberg Institute-supported expedition to southern Morocco (period 14/03/07-26/03/07). This was to characterize trilobite biofacies at the classic source of the trilobites seen in shops and museums. My duties included measurement of sections, characterization of fossil associations, and study of fossil preservation.

Co-chaired session "Bioevents and Sequence Stratigraphy" with C.E. Mitchell. Geological Society of America, Northeast Section Mtng., Buffalo, New York (March 21, 1996).

Co-chaired session “Late Ordovician Taconian orogenesis” with J.M. Crespi, A. Goldstein and C.E. Mitchell, Geological Society of America, Northeast Section Mtng., Saratoga, New York (March 14, 2005).

Co-chaired session “Evolution of the Taconian foreland basin” with C.E. Mitchell and C.E. Brett. Geological Society of America, Northeast Section Mtng., Buffalo, New York (March 28, 2008).

Technical editor for Journal of Paleontology (7/1/98 - present). Eighteen manuscripts reviewed to date.

## RESEARCH:

Research is directed to chronostratigraphy of Paleozoic deposits using cyclic- and event-stratigraphic information, paleoecology of ancient organisms and study of preservational processes. Stratigraphic

mapping is directed ultimately to reconstruction of the evolution of foreland basin settings, particularly that associated with Ordovician and Devonian deposits in the northern Appalachian Basin. Additional work has been directed to the study of paleoenvironments in midcontinent U.S. Pennsylvanian deposits.

Detailed study of the Middle Devonian Hamilton Group of New York State has involved over twenty years of mapping which is still ongoing. This work, in collaboration with Carlton Brett and his students, first, at the University of Rochester and, recently, at the University of Cincinnati involves detailed stratigraphic correlation of bedrock. A key goal of this work is to identify and correlate chronostratigraphic "tie-lines" including allocycles and event-beds through the foreland basin clastic wedge. Identification of numerous, mappable event-beds and cycles has led to discovery of tectonic basin-shifting at several levels revealing flexural dynamics within the foreland basin. Another goal is to develop a quantitative understanding of the relationship of facies units to one another within marine cycles. Paleoenvironmental controls which acted on Devonian organisms are being identified in order to explain recurrent assemblages now recognized at many levels. Finally, these recurrent assemblages are being studied in detail for evidence that long-term evolutionary stasis was operant during the time of Hamilton Group deposition. A major finding associated with Devonian research was discovery of evidence for significant submarine erosion timed with the transgressive onset of black shale deposition: erosion involved dissolution of carbonate allochems during erosion and the tractional concentration of reworked pyritic grains prior to black mud accumulation.

Fieldwork has been directed to study of the Late Devonian sedimentary sequence in southern Erie and Chautauqua counties. Initial discoveries include: recognition of a sequence of massive turbiditic sandstones ("Upper" Nunda Sandstone) within the Pipe Creek black shale; discovery of rugose corals at numerous levels within the Hanover Member of the Java Formation; discovery of articulated echinoderms (crinoids and echinoids) in the Ellicott Member of the Chadakoin Formation; and discovery of the zonally significant fucoid alga *Foerstia* in the same Ellicott layers. Subsequently, the *Foerstia* zone has been traced eastward past Bradford, Pennsylvania. Recent mapping of Chadakoin strata and those of the higher Cattaraugus Formation has revealed widespread member-scale subdivisional units as well as probable surficial expression of the "Bass Island" structural trend in western Chautauqua County. The most recent initiative is ongoing study of the Tully Formation eastern clastic correlatives in eastern New York and Tully facies equivalents in Pennsylvania.

Baird has studied aspects of a regional mudstone color and slakeability gradient which is believed to be a sensitive measure of heat-of-burial history. Eastward and southeastward darkening of shales with accompanying hardening and loss of slakeability is closely correlative with Conodont Coloration Index (C.A.I.) and geochemical parameters for increasing thermal maturity of deposits. Continuing work is directed to linking both shale color and C.A.I. more rigorously to Total Organic Carbon (T.O.C.) in samples.

A major initiative is regional chronostratigraphic mapping of Middle/Upper Ordovician deposits in the northern Appalachian Basin. This study, with Carlton Brett (University of Rochester), Charles Mitchell (University of Buffalo) and John Delano (SUNY Albany), involves significant revision of the existing stratigraphy. It involves use of many parameters (graptolites, conodonts, facies, K-bentonite geochemistry) for cross-checking claims. Major revisions, that we have so far advanced using cyclic and event-stratigraphic mapping, have largely held up to geochemical cross-checks. A major goal of this work is to establish a close link between key time-stratigraphic events in Ordovician sections and major tectonic events which take place during deposition of these strata.

Having received funding (summer salary for annum 2005-period) from the American Chemical Society (Petroleum Research Fund), I devoted the fall activity to detailed examination of drill cores, newly obtained by the New York

State Geological Survey, which provide an unprecedented view of Ordovician age strata in eastern New York. Fifty four cores, comprising about two and one half kilometers of rock section, were examined measured and recorded. This core information virtually doubles the section database already known from sections in the Mohawk Valley. Two reports on the core findings have been presented at northeast section meetings of the Geological Society of America (Saratoga and Camp hill). Several papers, based on this work, are planned.

Worked with Carlton Brett, eight other Americans, and six Germans on a thirteen-day expedition to examine Devonian-age, trilobite-bearing strata in southern Morocco (03/13/07-03/26/07). The purpose of this initiative is to decipher controls responsible for the formation of rhythmic limestone beds yielding abundant trilobites and few other fossils. Baird examined preservational/sedimentological aspects of these strata. An unanticipated aspect of the trip was discovery by Baird of a large, basal Middle Devonian armored fish (Arthrodire) which awaits description.

Recent mapping work with A. Bartholomew (SUNY New Paltz) has been directed to correlation of Middle Devonian strata across the regions of the southern Appalachians, Michigan, southern Illinois, and central Tennessee (06/05-01/07).

Worked with Graduate students Jay Zambito and Randy Blood (Univ. Buffalo) on a research project directed to the characterization of structural (tectonic) alteration of volcanic ash layers within Ordovician deposits in eastern New York. This ongoing work, may reveal an episode of basin-wide thermal alteration timed with the Alleghenian orogeny (see abstracts below).

I am currently mapping end-Devonian and basal Mississippian stratigraphic units across Crawford County, PA with Fredonia undergraduate students. The goal of this work is to identify global end-Devonian bioevents in the northern Appalachian Basin and to extend the better known Ohio units into the poorly understood Pennsylvania sections.

#### PUBLICATIONS:

- Baird, G.C. and F.T. Fursich, 1975. Taphonomy and biologic progression associated with submarine erosion surfaces from the German Lias. *Neues Jahrbuch Geologie U. Palaontologie, Stuttgart* 6: 321-328.
- Baird, G.C., 1976. Coral encrusted concretions: a key to recognition of a "shale on shale" erosion Surface. *Lethaia*, 9: 293-302.
- Baird, G.C., 1978. Pebbly phosphorites in shale: a key to recognition of a widespread submarine discontinuity in the Middle Devonian of New York. *Journal Sedimentary Petrology* 48: 545-556.
- Baird, G.C., 1979. Lithology and fossil distribution, Francis Creek Shale, northeastern Illinois, 41-67. *In* Nitecki, M.H. (ed.) Mazon Creek Fossils. Academic Press, Chicago, 581 p.
- Baird, G.C., 1979. Sedimentary relationships in Portland Point and associated Middle Devonian rocks in central and western New York. *New York State Museum Bulletin* 433: 24 p.
- Baird, G.C., 1979. Mazon Creek Biota and Paleoenvironments of Francis Creek Shale. Guidebook, 9th International Carboniferous Congress (field trips E and H), 6-33.
- Baird, G.C. and C.W. Shabica, 1980. The Mazon Creek depositional event: examination of Francis



- Creek and analogous facies in the midcontinent region, 79-92. In Langeheime, R.L. and C.J. Mann (eds.) Middle and Late Pennsylvanian strata on margin of Illinois Basin Guidebook S.E.P.M. Great Lakes Section, Danville.
- Baird G.C., 1981. Submarine erosion on a gentle paleoslope: a study of two discontinuities in the New York Devonian, Lethaia, 14: 105-122.
- Baird, G.C. and C.E. Brett, 1981. Submarine discontinuities and sedimentary condensation in the upper Hamilton Group (Middle Devonian): examination of marine shelf and paleoslope deposits in the Cayuga Valley, 115-145. In Enos, P. (ed.), Guidebook for field trips in south-central New York. New York State Geological Association, 53rd Annual Meeting, Binghamton, N.Y.
- Brett, C.E. and G.C. Baird, 1981. Stop descriptions: Stops 1, 5, 8-10. In Oliver, W.A. and G.A. Klapper (eds.), Devonian biostratigraphy of New York, Int. Union Geological Sciences, Subcommission on Devonian Stratigraphy, Washington, D.C., 69 p.
- Baird, G.C. and B.G. Woodland, 1982. Pennsylvanian coalified rhizomorphs in Illinois: evidence for noncompressive coalification to bituminous coal rank. Sedimentology, 29: 3-15.
- Brett, C.E. and G.C. Baird, 1982. Upper Moscow-Genesee stratigraphic relationships in western New York: evidence for regional erosive beveling in the Late Middle Devonian, 19-65. In Buehler, E.J. and P.E. Calkin, (eds.), Guidebook for field trips in Western New York, Northern Pennsylvania, and adjacent Southern Ontario. New York State Geological Association, 54th Annual Meeting., Buffalo.
- Baird, G.C. and C.E. Brett, 1983 Regional variation and paleontology of two coral beds in the Middle Devonian Hamilton Group of western New York, Journal of Paleontology, 57 (3) 417-446.
- Brett, C.E., Baird, G.C., Gray, L.M. and M.L. Saverese, 1983. Middle Devonian (Givetian) coral associations of western and central New York State, 65-108. In Sorauf, J.E. and W.A. Oliver, Jr. (eds), Silurian and Devonian corals and stromatoporoids of New York. Fourth International Symposium on Fossil Cnidaria, 180 p.
- Baird, G.C., Shabica, C.W., Anderson, J.L. and E.S. Richardson, Jr., 1985. Biota of a Pennsylvanian muddy coast: habitats within the Mazonian Delta Complex, Northeast Illinois, Journal Paleontology, 58 (2) 253-281.
- Baird, G.C. Sroka, S.E., Shabica, C.W. and T.L. Beard, 1985. Mazon Creek-type fossil assemblages in the U.S. midcontinent Pennsylvanian: their recurrent character and paleoenvironmental significance, 87-99. In, Whittington, H.B. and S. Conway Morris (eds), Extraordinary fossil biotas: their ecological and evolutionary significance. Philosophical Transactions of the Royal Society: Series B, 311.
- Brett, C.E. and G.C. Baird, 1985. Carbonate-shale cycles in the Middle Devonian of New York: an evaluation of models for the origin of limestones in terrigenous shelf sequences. Geology, 13 (5) 324-327.
- Baird, G.C., Sroka, S.D., Shabica, C.W. and G.J. Kuecher, 1986. Taphonomy of Middle Pennsylvanian Mazon Creek area fossil localities, northeast Illinois: Significance of exceptional fossil preservation in syngenetic concretions. Palaios, 1: 271-285.

- Brett, C.E. and G.C. Baird, 1986. Comparative taphonomy: a key to paleoenvironmental interpretation based on fossil preservation. *Palaios*, 1: 207-227.
- Baird, G.C. and C.E. Brett, 1986. Submarine erosion on the dysaerobic seafloor: Middle Devonian corrosional disconformities in the Cayuga Valley region. Field Trip Guidebook, New York State Geological Association, 58th Annual Meeting., Cornell, 23-80.
- Brett, C.E., Baird, G.C. and K.B. Miller, 1986. Sedimentary cycles and lateral facies gradients across a Middle Devonian shelf-to-basin ramp, Ludlowville Formation, Cayuga Basin. Field Trip Guidebook, New York State Geological Association, 58th Annual Meeting, Cornell, 81-128.
- Brett, C.E. and G.C. Baird, 1986. Symmetrical and upward-shallowing cycles in the Middle Devonian of New York State: implications for the PAC hypothesis. *Paleoceanography* 1 (4), 431-445.
- Brett, C.E. and G.C. Baird, 1986. Middle Devonian Stratigraphy, facies and depositional environments of western New York State, 41-100. In Miller, M.A. (ed.), A field excursion to Trenton Group (Middle-Upper Ordovician) and Hamilton Group (Middle Devonian) localities in New York and a survey of their chitinozoans. Field Trip Guidebook No. 2, American Association Stratigraphic Palynologists, Dallas.
- Baird, G.C. and C.E. Brett, 1986. Erosion on an anaerobic seafloor: significance of reworked pyrite deposits from the Devonian of New York State. *Palaeogeography, Palaeoclimatology, Palaeoecology* 57: 157-193.
- Baird, G.C., Speyer, S.E. and C.E. Brett, 1986. Storm-generated sedimentary units: tempestite proximity and event stratification in the Middle Devonian Hamilton Group, 129-156. In Brett, C.E. (ed.) Dynamic Stratigraphy and depositional environments of the Hamilton Group (Middle Devonian) in New York State. Part I. New York State Museum Bulletin, No. 457.
- Baird, G.C., Brett, C.E. and W.T. Kirchgasser, 1988. Genesis and geochronology of black shale-roofed discontinuities in the Devonian Genesee Formation, western New York State, 357-375. In McMillan, N.J., Embry, A.F. and D.J. Glass (eds), Devonian of the world. Canadian Society of Petroleum Geologists Memoir 14.
- Kirchgasser, W.T., Baird, G.C. and C.E. Brett, 1988. Regional placement of Middle/Upper Devonian (Givetian-Frasnian) boundary in western New York State, 113-117. In McMillan, N.J., Embry, A.F. and D.J. Glass (eds), Devonian of the world. Canadian Society of Petroleum Geologists Memoir 14.
- Baird G.C., Brett, C.E. and R.C. Frey, 1989. Hitchhiking epizoans on orthoconic cephalopods; a review of the evidence and its implications. *Senckenbergiana Lethaia*, 69: 501-516.
- Woodrow, D.L., Brett, C.E., Selleck, B. and G.C. Baird, 1989. Sedimentary sequences in a foreland basin: The New York System. 28th International Geological Congress Guidebook, T 156, 43 p.
- Baird G.C., 1990. Mazon Creek, A279-282. In Briggs, D.G. and P.R. Crowther (eds), Palaeobiology: a synthesis, Blackwell Scientific, Oxford.
- Brett, C.E. Miller, K.B. and G.C. Baird, 1990. A temporal hierarchy of paleoecologic processes within a

- Middle Devonian epeiric sea, 178-209. In Miller, W.III (ed.), *Paleocommunity temporal dynamics: the long-term development of multispecies assemblages*. Paleontological Society Special Publication No. 5.
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- Baird, G.C., Brett, C.E. and J.T. Tomlinson, 1990. Host-Specific acrothoracid barnacles on Middle Devonian platyceratid gastropods. *Historical Biology*, 4: 221-244.
- Brett, C.E., Dick, V.B. and G.C. Baird, 1991. Comparative taphonomy and paleoecology of Middle Devonian dark grey and black shales from western New York, 5-36. In Landing, E. and C.E. Brett (eds), *Dynamic stratigraphy and depositional environments of the Hamilton Group (Middle Devonian) in New York State - Part II*, New York State Museum Bulletin 469.
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- Brett, C.E. and G.C. Baird, 1993. Middle Devonian stratigraphy, facies and depositional environments of western New York State. Special Publication, Paleontological Research Institution. 66th Anniversary Reunion Field Trip Guidebook. 34 p. 10 pls.
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