**CURRICULUM VITAE**



ORCID ID: 0000-0003-0186-6546

Gar W. Rothwell

Edwin and Ruth Kennedy Distinguished Professor Emeritus

Department of Environmental and Plant Biology

Porter Hall 401E T: 740 593 1129

Ohio University F: 740 593 1130

Athens, OH 45701 E: rothwell@ohio.edu

also

Courtesy Professor

Department of Botany and PlantPathology

Oregon State University T: 541 737- 5252

Corvallis, OR 97331 E: gar.rothwell@oregonstate.edu

**Education** Ph.D.,1973 University of Alberta (Botany)

M.S., 1969 University of Illinois, Chicago (Biology)

 B.A., 1966 Central Washington University (Biology)

**Academic Awards and Honors**

2018 International Organisation of Palaeobotany lifetime Honorary Membership

2014 Fellow of the Paleontological Society

2009 Distinguished Fellow of the Botanical Society of America

2004 Ohio University Distinguished Professor

2002 Michael A. Cichan Award, Botanical Society of America

1999-2004 Ohio University Presidential Research Scholar in Biomedical and Life Sciences

1993 Edgar T. Wherry Award, Botanical Society of America

1991-1992 Outstanding Graduate Faculty Award, Ohio University

1982-1983 Chairman, Paleobotanical Section, Botanical Society of America

1972-1973 University of Alberta Dissertation Fellow

1971 Paleobotanical (Isabel Cookson) Award, Botanical Society of America

**Positions Held**

2011-present Courtesy Professor of Botany and Plant Pathology, Oregon State University

2008-2009 Visiting Senior Researcher, University of Alberta

2004-present Edwin and Ruth Kennedy Distinguished Professor of Environmental and Plant Biology, Ohio University

2003-2010 Chair, Department of Environmental and Plant Biology, Ohio University

1999-2000 Visiting Scholar, University of Alberta

1992-1993 University of Alberta, Visiting Senior Researcher in Geology

1991-2004 Professor of Environmental and Plant Biology, Ohio University

1990-1995 University of Alberta, Adjunct Professor of Botany

1984-1985 Visiting Researcher, University of London, Chelsea College

1984-1991 Professor of Botany, Ohio University

1979-1984 Associate Professor of Botany, Ohio University

1974-1979 Assistant Professor of Botany, Ohio University

1973-1974 Visiting Assistant Professor of Botany, University of Alberta

**Professional Society Memberships**

American Fern Society

American Society of Plant Biologists

American Society of Plant Taxonomists

Botanical Society of America

Canadian Botanical Association

Geological Society of America

International Association of Plant Taxonomists

International Organisation of Palaeobotany

International Organization of Pteridologists

Paleontological Society

Sigma Xi

The Botanical Society of Japan

Torrey Botanical Society

**Mentoring, Supervision, and Collaboration**

**Undergraduate Researchers** (resulting in student as published author; \*current): James Basinger, Emma Buczkowski, Chandler Clarkson, Diane Erwin, Amy Falder, Kaitliln Hilleir, Kelli Johnson, Nathan Jud, Steve Karafit, Trevor Lance, Kathleen Pigg, Madeleine Rae, Steven Ratzel, Jennifer Rice, Susan Riggs, MacKensey Smith, \*Alex Scharfstein, Selena Smith, Nicholas Stanich, Mary Trivett, Michelle Van Atta, Susan Warner, Tim Williams

 **M.S. Students**: Hazel Beeler, Diane Erwin, Amy Falder, David Frankel, Gary Grove, Jon Hamer, Genaro Hernandez-Castillo, Nicholas Hoffmann, Bai Li, Melissa McComas, Kathleen Pigg, Janelle Pryor, Rudy Serbet, Mary Trivett

 **Ph.D. Students** (\*current): Brian Atkinson, \*Alex Bippus, Mike Dunn, Jim Mickle, Janelle Pryor, Heather Sanders, Rudy Serbet, Sara Stubblefield, Mihai Tomescu, Mary Trivett

 **Post Doctoral Fellows:** Ignacio Escapa, B-C Feng, Z-H Liu, Patricia Ryberg, David Wight

 **Visiting Scientists:** Richard Bateman, UK; Aureal T. Cross, USA; Laurisa Doguzhaeva, Russia; Don Eggert, USA; Ignacio Escapa, Argentina; William Gillespie, USA; Charles Good, USA; Jason Hilton, UK; Eric Karrfalt, USA; Simcha Lev-Yadun, Isreal; Paul Lyons, USA; Michael Millay, USA; Steve Scheckler, USA; Ruth Stockey, Canada; K-Q Sun, China; Z-L Yao, China; Robert Wagner, Spain; Harold Walter, Germany

**Administrative Experience**

 **Professional Activities and Elected Offices**

 Member and contributor, PaleoBiology Data Base, 2016-present.

 Associate Editor, Ameghiniana, 2012-present.

 President, International Organisation of Palaeobotany, 2008-2012.

Editorial Advisory Committee, The Paleobotanist, 2001- 2003.

 Secretary/Treasurer, International Organisation of Palaeobotany, 2000-2008.

 Botanical Society of America, Committee on Committees, 1999-2004.

Scientific Program Organizing Committee, XVI International Botanical Congress, St. Louis MO, 1997-1999.

 Chairman, Mid-Continent Paleobotanical Colloquium, 1997. (co-organizer 1981, 1983,

 1991, 1997, 2018; organizational adviser 1981-present)

Associate Editor, American Journal of Botany, 1995-present.

 Director, Ohio University Scientific Imaging Facility, 1994-2004.

Director, Ohio University Biodiversity Resources (National Science Collections Alliance), 1994-2009.

Editorial Board, Review of Palaeobotany and Palynology, 1991-2012.

 Secretary/Treasurer, Paleobotanical Section, Botanical Society of America, 1983-1986. Curator, Ohio University Paleobotanical Collections/Paleobotanical Herbarium (OUPH),

 1978-present.

**University (Ohio University)**

Ohio University Distinguished Professors, 2004-present

Ohio University, CAS Chairs and Directors Council, 2003-2010.

 Director, Ohio University Biodiversity Resources, 1994-2009.

 Director, Ohio University Scientific Imaging Facility, 1993-2004.

 Curator of the Ohio University Paleobotanical Herbarium, 1984-2011.

 Ohio University Curriculum Council, 1983-1986.

 Ohio University Faculty Senate, 1980-1983, 1999-2002.

 Ohio University Graduate Council, 1980-1983.

**College (Ohio University)**

 Chairs and Directors, 2003-10.

Arts and Sciences Information Technology Committee, 2004-2006.

 Arts and Sciences Building Renovation Committee, 1990-1992.

 Arts and Sciences Computer Advisory Committee, 1989-1992.

 Arts and Sciences Promotion and Tenure Committees, 1980-present.

**Departmental (Ohio University)**

Department Chair, 2003-2010

 Chair, Doctoral Program Review (Ohio Board of Regents Mandate), 1995.

 Director, Photomicroscopy Laboratory and Departmental Darkrooms, 1984-1993.

 Director, Scanning Electron Microscopy Laboratory, 1988-1993.

 Chair, Graduate Programs, 1980-1983.

**Publication Record**

 **Books Authored**

Stewart, W. N., and G. W. Rothwell. 1993. Paleobotany and the evolution of plants. Cambridge University Press, 521 pp.

 **Books/Journal Issues Edited**

1978. Rothwell, G.W., ed. W. N. Stewart, Special Section. Canadian Journal of Botany 56(24): 3083-3107.

1991. Rothwell, G.W. and J.E. Basinger, eds. Paleobotany in Canada, Special Issue. Review of Palaeobotany and Palynology 70(1-2):1-185.

1994. Rothwell, G.W. and R.A. Stockey, eds. Pteridophytes and gymnosperms: Current concepts of structure, evolutionary history, and phylogeny, Special Issue. Journal of Plant Research 107(4): 409-512.

2006. Dunn, M.T. and G.W. Rothwell, eds. A century of seed ferns, Special Issue. Journal of the Torrey Botanical Society. 133(1): 1-209.

2006. Stockey, R.A. and G.W. Rothwell, eds. Evolution of modern ferns. Special Section. International Journal of Plant Sciences, 167(3): 613-749.

2013. Rothwell, G.W. and R.A. Stockey, eds. Thomas N. Taylor Diamond Jubilee, Conceptual advances in fossil plant biology, Special Issue. International Journal of Plant sciences 174(3): 267-607.

2018. Rothwell, G.W., A.M.F. Tomescu and I. Escapa, eds. Tree of Death Special Issue: The role of fossils in resolving the overall pattern of plant phylogeny. American Journal of Botany 105, No. 8.

2018. Krings, M.A., C. Harper, N.R. Cuneo, and G.W. Rothwell, eds. Transformative Paleobotany. Academic Press, Burlington, MA, USA.

 **Peer Reviewed Articles, Chapters in Books, and Invited Book Reviews**

276. Tomescu, A.M.F., I. Escapa and G.W. Rothwell. 2021. Phylogeny and time’s arrow: the role of fossils and morphology in reconstructing evolutionary history. New Phytologist manuscript ID: NPH-L-2020-34344, submitted August 31, 2020.

265. Tomescu, A. and G.W. Rothwell. 2021. Fossils and Plant Evolution: Structural Fingerprints and Modularity in the Evo-Devo Paradigm. EvoDevo (EVOD-D-21-00022), submitted September 28, 2021. (also Preprints 2020, 2020070311 (doi: 10.20944/preprints202007.0311.v1).

274. Rothwell, G.W., M.T Dunn and A.C. Scott. 2021. Reconstructing the *Tetrastichia bupatides* Gordon plant; a Lower Carboniferous/Devonian (Tournaisian) hydrasperman gymnosperm from Oxroad Bay, Scotland and Ballyheigue, Ireland. Review of Palaeobotany and Palynology, in revision.

273. Stockey, R.A., G.L. Hoffman and G.W. Rothwell. 2021. Josef Bogner’s Influence on Paleobotany. Aroideana 44: 41-81.

272. Atkinson, B.A., D.L. Contreras, R.A. Stockey and G.W. Rothwell. 2021. Disparate diversity of ancient cunninghamioid conifers (Cupressaceae): two new genera from the Upper Cretaceous of Hokkaido, Japan. Botany 99: 457-473.

271. Stockey, R.A., G.L. Hoffman and G.W. Rothwell. 2021. Fossil evidence for Paleocene diversification of Araceae: *Bognerospadix* gen. nov. and *Orontiophyllum grandifolium* comb. nov. American Journal of Botany 108: 1417–1440. <https://doi.org/10.1002/ajb2.1707>

270. Gierlowski-Kordesch, E.H., G.W. Rothwell, R.A. Stockey and D.B. Finkelstein. 2021. Submarine groundwater discharge as a catalyst for eodiagenetic carbonate cements within marine sedimentary basins. Pp. 445-468, in: Rosen, M.R., L. Park-Boush, D.B. Finkelstein and S.P. Pueyo. Limnogeology: Progress, challenges and opportunities: A tribute to Elizabeth Gierlowski-Kordesch. Springer Nature Switzerland AG, Switzerland.

269. Bippus, A.C., G.W. Rothwell, and R.A. Stockey. 2021. *Cynodontium luthii* sp. nov.: a permineralized moss gametophyte from the Late Cretaceous of the North Slope of Alaska. American Journal of Botany 108: 495-504.

268. Rothwell, G.W. 2021. The evolution of stelar architecture. In: Tomescu, A.M.F. 2021. The stele – a developmental perspective on the diversity and evolution of primary vascular architecture. Biological Reviews. doi: 10.1111/brv.12699.

267. Rothwell, G.W., R.A. Stockey and S.Y. Smith. 2020. Revisiting the Late Cretaceous *Parataxodium wigginsii* flora from the North Slope of Alaska, a high-latitude temperate forest. Cretaceous Research 116:104592; ISSN 0195-6671

266. Stockey, R.A. and G.W. Rothwell. 2020. Diversification of crown group *Araucaria*: the role of *Araucaria famii* sp. nov. and other fossils in the late-Cretaceous (Campanian) radiation of Araucariaceae in the Northern Hemisphere. American Journal of Botany 107: 1072–1093. doi:10.1002/ajb2.1505265.

265. Stockey, R.A., H, Nishida and G.W. Rothwell. 2020. Evolutionary diversification of taiwanioid conifers: evidence from a new Upper Cretaceous seed cone from Hokkaido, Japan. Journal of Plant Research 133: 681–692.

264. Stockey, R.A., G.W. Rothwell and B.A. Atkinson. 2020. Late Cretaceous diversification of cupressaceous conifers: a taiwanioid seed cone from the Eden Main, Vancouver Island, British Columbia, Canada. International Journal of Plant Sciences 181: 529–541 DOI: 10.1086/708383.

263. Rothwell, G.W. 2020. Cauline vasculature and leaf trace production of *Medullosa leuckartii* Göppert & Stenzel (Medullosaceae), a Paleozoic gymnospermous vine. International Journal of Plant Sciences 181: 464-472.

262. Scharfstein, A.R., Stockey, R.A. and G.W. Rothwell. 2020. Evolution and phylogeny of Altingiaceae: anatomically preserved infructescences from Late Cretaceous deposits of Vancouver Island, British Columbia, Canada. International Journal of Plant Sciences 181:452–463. DOI: 10.1086/707107.

261. Rothwell, G.W., A.M.F. Tomescu and I.H. Escapa. 2018. Tree of death: The role of fossils in resolving the overall pattern of plant phylogeny. American Journal of Botany 105: 1239–1242. doi:10.1002/ajb2.1138

260. Stockey, R.A., J.P. Wiebe, B.A. Atkinson, and G.W. Rothwell. 2018. Cupressaceous pollen cones from the Early Cretaceous of Vancouver Island, British Columbia: *Morinostrobus holbergensis* gen. et sp. nov. International Journal of Plant Sciences 179: 402–414.

259. Elgorriaga, A., I.H. Escapa, G.W. Rothwell, A.M.F. Tomescu, and N.R. Cúneo. 2018.The origin of *Equisetum*; evolution of modern horsetails (Equisetales) within the major euphyllophyte clade Sphenopsida. American Journal of Botany 105: 1286–1303. doi:10.1002/ajb2.1125

258. Rothwell, G.W., M.A. Millay, and R.A. Stockey. 2018. Resolving the overall pattern of marattialean fern phylogeny. American Journal of Botany 105: 1304-1314. doi:10.1002/ajb2.1125

257. Savoretti, A., A.C. Bippus, R.A. Stockey, G.W. Rothwell, and A.M.F. Tomescu. 2018. Grimmiaceae in the Early Cretaceous: Tricarinella crassiphylla gen. et sp. nov., and the resolving power of anatomically-preserved bryophytes. Annals of Botany Annals of Botany 121: 1275–1286 .<https://doi.org/10.1093/aob/mcy015>.

256. Rothwell, G.W., M.A. Millay, and R.A. Stockey. 2018. Escapia gen. nov.: Morphological evolution, paleogeographic diversification, and the environmental distribution of marattialean ferns through time. Pp. 271-360 In: Krings, M.A., C. Harper, N.R. Cuneo, and G.W. Rothwell, eds. Transformative Paleobotany. Academic Press, Burlington, MA, USA.

255. Atkinson, B.A., R.A. Stockey, and G.W. Rothwell. 2018. Tracking the initial diversification of asterids: Anatomically preserved cornalean fruits from the early Coniacian (Late Cretaceous) of western North America. International Journal of Plant Sciences 179: 21-35. <http://DOI:10.1086/695339>.

254. Rothwell, G.W. and A.M.F. Tomescu. 2018. Structural Fingerprints of Development at the Intersection of Evo-Devo and the Fossil Record. Pp. 573-602. In: Nuño de la Rosa L., Müller G.B. (eds) Evolutionary Developmental Biology. Springer, Cham.

253. Rothwell, G.W., M. Krings, and C.J. Harper. 2017. Thomas N. Taylor – Pioneering palaeomycologist (1937–2016). IMA Fungus 8: 59–60.

252. Jud, N.A., E.A. Wheeler, G.W. Rothwell and R.A. Stockey. 2017. Angiosperm wood from the Upper Cretaceous (Coniacian) of British Columbia, Canada, IAWA Journal 38: 141-161. <http://DOI:10.1163/22941932-20170164>.

251. Rothwell, G.W., M. Krings and C. Harper. 2017. Thomas N. Taylor – Pioneering palaeomycologist (1937–2016). IAP Mycology 8: 59-60.

250. Spencer, A.R., R.J. Garwood, A.R. Rees, R.J. Raine, G.W. Rothwell, N.T.J. HollingworthandJ. Hilton. 2017. New insights into Mesozoic cycad evolution: an exploration of anatomically preserved Cycadaceae seeds from theJurassic Oxford Clay biota. PeerJ, DOI 10.7717/peerj.3723.

249. Atkinson, B.A., R.A. Stockey, and G.W. Rothwell. 2017. The early diversification of Cornales: Permineralized cornalean fruits from the Campanian (Upper Cretaceous) of western North America. International Journal of Plant Sciences 178: 556-566. DOI: 10.1086/692766.

248. Bippus, A.C., R.A. Stockey, G.W. Rothwell and A.M.F. Tomescu. 2017. Extending the fossil record of Polytrichaceae: Early Cretaceous *Meantoinea alophosioides* gen. et sp. nov., permineralized gametophytes with gemma cups from Vancouver Island. American Journal of Botany 104: 584-597.

247. Tomescu, A.M.F., I. Escapa, G.W. Rothwell, A. Elgorriaga, and N.R. Cuneo. 2017. Developmental programs in the evolution of *Equisetum* reproductive morphology - a hierarchical modularity hypothesis. Annals of Botany, 119: 489–505, 2017; doi:10.1093/aob/mcw273ss.

246. Rothwell, G.W. 2017. In memorium: Thomas Norwood Taylor (1938-2016). Plant Science Bulletin 63: 33-35.

245. Atkinson, B.A., R.A. Stockey, and G.W. Rothwell. 2017. Cretaceous origin of dogwoods: an anatomically preserved *Cornus* (Cornaceae) fruit from the Campanian of Vancouver Island. PeerJ: 4:e2808. [https://*doi*.org/*10.7717*/*peerj*.*2808*](https://doi.org/10.7717/peerj.2808).

244. Shelton, G.W.K., R.A. Stockey, G.W. Rothwell and A.M.F. Tomescu. 2016. *Krassiloviella* *limbelloides* gen. et sp. nov.: Additional diversity in the hypnanaean moss family Tricos taceae (Valanginian, Vancouver Island, British Columbia). International Journal of plant Sciences 177: 792-808.

243. Hilton, J., J.B. Ridingand G.W. Rothwell. 2016. Age and identity of the oldest pine fossils. Geology 44: e402-403 (DOI 10.1130/G38240Y.1).

242. Gernandt, D.S., G. Holman, C. Campbell, M. Parks, A. Liston, R.A. Stockey and G.W. Rothwell. 2016. Phylogenetics of extant and fossil Pinaceae using implied character weighting and model-based methods. Botany 94 :863-884.

241. Rothwell, G.W. and T. Ohana. 2016. Stockeystrobus gen. nov. (Cupressaceae), and the evolutionary diversification of sequoioid conifers. Botany 94: 847-861.

240. Stockey, R.A., G.W. Rothwell and K.R. Johnson. 2016. Evaluating relationships among floating aquatic monocots: A new species of Cobbania (Araceae) from the Upper Maastrichtian of South Dakota. International Journal of Plant Sciences 177: 706-725.

239. Rothwell, G.W. and R.A. Stockey. 2016. Phylogenetic diversification of Early Cretaceous seed plants: The compound seed cone of Doylea tetrahedrasperma. American Journal of Botany 103: 923 – 937.

238. Smith, S.L., R.A. Stockey, G.W. Rothwell and S.A. Little. 2016. A new species of Pityostrobus (Pinaceae) from the Cretaceous of California: moving towards understanding the Cretaceous radiation of Pinaceae. Journal of Systematic Palaeontology 14: 69-81., <http://www.tandfonline.com/doi/abs/10.1080/14772019.2016.1143885>

237. Buczkowski, E.L., R.A. Stockey, B.A. Atkinson and G.W. Rothwell. 2016. Cunninghamia beardii sp. nov. (Cupressaceae: Cunninghamioideae), anatomically preserved pollen cones from the Eocene of Vancouver Island, British Columbia Canada. International Journal of Plant Sciences 177: 103-114.

236. Shelton, G.W.K., R.A. Stockey, G.W. Rothwell and A.M.F. Tomescu. 2015. Exploring the fossil history of pleurocarpous mosses: Tricostaceae fam. Nov. from the Cretacous of Vancouver Island, Canada. Americal Journal of Botany 102: 1883-1900.

235. Spencer, A.R.T., G. Mapes, J. Hilton, R.M. Bateman and G.W. Rothwell. 2015. Middle Jurassic evidence for the origin of Cupressaceae: a paleobotanical context for the roles of regulatory genetics and development in the evolution of conifer seed cones. American Journal of Botany 102: 942-961.

234. Atkinson, B.A., R.A. Stockey G.W. Rothwell, R.A. Mindell and M.J. Bolton. 2015. Lauraceous flowers from the Eocene of Vancouver Island: Tinaflora beardiae gen. et sp. nov. (Lauraceae). International Journal of Plant Sciences 176: 378-392.

233. Klymiuk, A.A., R.A. Stockey and G.W. Rothwell. 2015. Plant-arthropod interactions in Acanthostrobus edenensis (Cupressaceae), a new conifer from the Upper Cretaceous of Vancouver Island, British Columbia. International Journal of Plant Science176: 378-392.

232. Smith, M.A., G.W. Rothwell and R.A. Stockey. 2015. Mesozoic diversity of Osmundaceae: Osmundacaulis whittlesii sp. nov. in the Early Cretaceous of western Canada. International Journal of Plant Sciences 176: 245**–**258.

231. Rothwell, G.W. and S. Ash. 2015. Internal Anatomy of the Late Triassic Equisetocaulis gen. nov., and the evolution of modern horsetails. Journal of the Torrey Botanical Society 142: 27-37. 230.

230. Atkinson, B.A., G.W. Rothwell and R.A. Stockey. 2014. Hughmillerites vancouverensis sp. nov. and the Cretaceous diversification of Cupressaceae. American Journal of Botany 101: 2136-2147.

229. Rothwell, G.W., S.W. Wyatt and A.M.F. Tomescu. 2014. Plant evolution at the interface of paleontology and developmental biology: an organism centered paradigm. American Journal of Botany 101: 899-913.

228. Ray, M.M., G.W. Rothwell and R.A. Stockey. 2014. Anatomically preserved Early Cretaceous bennettitalean leaves*: Nilssoniopteris corrugata* sp. nov., from Vancouver Island, Canada. Journal of Paleontology 88: 1085-1093.

227. Tomescu, A.M.F, S.W. Wyatt, M. Hasebe and G.W. Rothwell. 2014. Early evolution of the vascular plant body plan - the missing mechanisms. Current Opinion in Plant Biology 17: 126-136.

226. Atkinson, B.A., G.W. Rothwell and R.A. Stockey. 2013. *Hubbardiastrobus cunninghamioides* gen. et sp. nov., evidence for a Lower Cretaceous diversification of cunninghamioid Cupressaceae. International Journal of Plant Sciences, 175: 256-269.

225. Rothwell, G.W., G. Mapes, R.A. Stockey and J. Hilton. 2013. Diversity of ancient conifers: the Jurassic seed cone Bancroftiastrobus digitata gen. et sp. nov. (Coniferales). International Journal of Plant Sciences 174: 937-946.

224. Rothwell, G.W. and R.A. Stockey. 2013. Conceptual advances in fossil plant biology: Introduction and dedication. International Journal of Plant Sciences 174: 267-268.

223. Rothwell, G.W. and R.A. Stockey. 2013. Evolution and phylogeny of gnetophytes: evidence from the anatomically preserved seed cone Protoephedrites eamesii gen. et sp. nov. and several species of bennettitalean seeds. International Journal of Plant Sciences 174: 511-529.

222. Serbet, R., B. Bomfleur and G.W. Rothwell. 2013. Cunninghamia taylorii sp. nov. a structurally preserved cupressaceous conifer from the Upper Cretaceous (Campanian) Horseshoe Canyon Formation of Western North America. International Journal of Plant Sciences 174: 471-488.

221. Stockey, R.A., G.L. Hoffman, and G.W. Rothwell. 2013. Paleobotany and paleoecology of Gao Mine, a Late Paleocene fossil locality near Red Deer, Alberta, Canada. Canadian Journal of Earth Sciences 50: 235-248.

220. Stockey, R.A. and G.W. Rothwell. 2013. Pararaucaria carrii sp. nov., anatomically preserved evidence for the conifer family Cheirolepidiaceae in the Northern Hemisphere. International Journal of Plant Sciences 174: 445-457.

219. Escapa, I.H., N.R. Cuneo, G.W. Rothwell and R.A. Stockey, 2013. Pararaucaria delfueyoi from the Late Jurassic Cañadón Calcáreo Formation, Chubut, Argentina: insights into the evolution of Cheirolepidiaceae. International Journal of Plant Sciences 174: 458-470.

218. Ryberg, P.E., R.A. Stockey, J. Hilton, G. Mapes, J.B. Riding and G.W. Rothwell. 2012. Reconsidering relationships among stem and crown group Pinaceae: Oldest record of the genus Pinus from the Early Cretaceous of Yorkshire, UK. International Journal of Plant Sciences 173: 917-932.

217. Rothwell, G.W., G. Mapes, R.A. Stockey and J. Hilton. 2012. The seed cone *Eathiestrobu*s gen. nov.; fossil evidence for a Jurassic origin of Pinaceae. American Journal of Botany 99: 708-720.

216. Escapa, I.H., G.W. Rothwell, R.A. Stockey, and N.R. Cuneo. 2012. Seed cone anatomy of Cheirolepidiaceae (Coniferales): Reinterpreting Pararaucaria patagonica Wieland. American Journal of Botany 99:1058-1068.

215. Dunn, M. and G.W. Rothwell. 2012. Phenotypic plasticity of the hydrasperman seed fern *Tetrastichia bupatides* Gordon. International Journal of Plant Sciences 173: 823-834.

214. Hillier, K.G. and G.W. Rothwell. 2012. *Senftenbergia oregonensis* (Arnold) Comb. Nov., (Filicales); delimiting relationships among Paleozoic Tedeleaceae. International Journal of Plant Sciences 173: 549-557.

213. Sanders. H., G.W. Rothwell and S.W. Wyatt. 2011. Parallel evolution of auxin regulation in rooting systems. Plant Systematics and Evolution 291: 221-225.

212. Klymiuk, A., G.W. Rothwell and R.A. Stockey. 2011. The first organismal concept for an extinct species of Pinaceae: *Pinus arnoldii* Miller. International Journal of Plant Sciences 172: 294-313.

211. Rothwell, G.W., R. A. Stockey, G. Mapes, and J. Hilton. 2011. Structure and relationships of the Jurassic conifer seed cone *Hughmillerites juddii* gen. et comb. nov. : implications for the early evolution of Cupressaceae. Review of Palaeobotany and Palynology 164: 45-59.

210. Jud, N.A., G.W. Rothwell and R.A. Stockey. 2010. Paleoecological and phylogenetic implications of *Saxicaulis meckertii* gen. et sp. nov.: a bennettitalean stem from the Upper Cretaceous of western North America. International Journal of Plant Sciences 171: 915-925.

209. Stevens, L.G., J. Hilton, A.R. Rees, G.W. Rothwell and R.M. Bateman. 2010. Systematics, phylogenetics, and reproductive biology of *Flemingites arcuatus* sp. nov., an exceptionally preserved and partly reconstructed Carboniferous arborescent lycopsid. International Journal of Plant Sciences 171: 783-808.

208. Rothwell, G.W. and R.A. Stockey. 2010. Independent evolution of seed enclosure in Bennettitales: Evidence from the anatomically preserved cone *Foxeoidea connatum* gen. et sp. nov. Pp. 51-66. In C.T. Gee [ed.], *Plants in Mesozoic Time: Innovations, Phylogeny, Ecosystems* (Ted Delevoryas festschrift).  Indiana University Press, Bloomington and Indianapolis.

207. Hernandez-Castillo, G.R., R.A. Stockey, G.W. Rothwell and G. Mapes. 2009. Reconstruction of the Pennsylvanian-age walchian conifer *Emporia cryptica* sp. nov. (Emporiaceae, Voltziales). Review of Palaeobotany and Palynology 157: 218-237.

206. Tomescu, A.M.F., L. Pratt, G.W. Rothwell, P.K. Strother, G.C. Nadon. 2009. Carbon isotopes support the presence of extensive land floras pre-dating the origin of vascular plants. Palaeogeography, Palaeoclimatology, Palaeoecology 283: 46-59.

205. Hernandez-Castillo, G.R., R.A. Stockey, G.W. Rothwell and G. Mapes. 2009. A new voltzialean conifer, *Emporia royal*ii sp nov. (Emporiaceae), from the Hamilton Quarry, Kansas. International Journal of Plant Sciences 170: 1201-1227.

204. Sanders, H., G.W. Rothwell and S.E. Wyatt. 2009. Key morphological alterations in the evolution of leaves. International Journal of Plant Sciences 170: 860-868.

203. Hernandez-Castillo, G.R., R.A. Stockey, G.W. Rothwell and G. Mapes. 2009. Whole plant reconstruction of *Emporia lockardii* (Emporiaceae) Voltziales and initial thoughts on Paleozoic conifer ecology. International Journal of Plant Sciences 170: 1056-1074.

202. Tomescu, A. M. F., G.W. Rothwell and R. Honegger. 2009. A new genus and species of filamentous microfossil of cyanobacterial affinity from Early Silurian fluvial environments (lower Massanutten Sandstone, Virginia, USA). Botanical Journal of the Linnean Society 160: 284-289.

201. Stanich, N.A., G.W. Rothwell and R.A. Stockey. 2009. Phylogenetic radiation of *Equisetum* (Equisetales) as inferred by Lower Cretaceous species of from British Columbia, Canada. American Journal of Botany 96: 1289-1299.

200. Stockey, R.A. and G.W. Rothwell. 2009. Distinguishing angiophytes from the earliest angiosperms: A Lower Cretaceous (Valanginian-Hauterivian) fruit-like reproductive structure. American Journal of Botany 96: 323-335.

199. Rothwell, G.W., W.L. Crepet and R.A. Stockey. 2009. Is the anthophyte hypothesis alive and well? New evidence from the reproductive structures of Bennettitales. American Journal of Botany 96: 296-322.

198. Hernandez-Castillo, G. R., G. W. Rothwell and R. A. Stockey. 2009. The role of multivariate analysis in reconstructing fossil conifers. Pages 21-28. In: Bieleski, R.L. and M.D. Wilcon, eds., Araucariaceae, Proceedings of the 2002 Araucariaceae Symposium. International Dendrology Society, Kunedin, New Zealand.

197. Rothwell, G.W. and E.E. Karrfalt. 2008. Growth, development and systematics of ferns: Does *Botrychium* s.l. (Ophioglossales) really produce secondary xylem? American Journal of Botany 95: 414-423.

196. Rothwell, G.W. and R.A. Stockey. 2008. Phylogeny and evolution of ferns: a paleontological perspective. P. 332-366. In: T.A. Ranker and Haufler, C.H., eds. The biology and evolution of ferns and lycophytes. Cambridge University Press.

195. Rothwell, G.W., H. Sanders, S.E. Wyatt and S. Lev-Yadun 2008. A fossil record for growth regulation; the role of auxin in wood evolution. Annals of the Missouri Botanical Garden 95: 121-134.

194. Jud. N.A., G.W. Rothwell and R.A. Stockey. 2008. *Todea* from the Lower Cretaceous of western North America: implications for the phylogeny, systematics, and evolution of modern Osmundaceae. American Journal of Botany 95: 330-339.

193. Tomescu, A. M. F., R. Honegger and G.W. Rothwell. 2008. Earliest fossil record of bacterial-cyanobacterial mat consortia: the early Silurian Passage Creek biota (440 Ma, Virginia, USA). Geobiology 6: 210-124.

192. Tomescu, A. M. F., G.W. Rothwell and M.L. Trivett. 2008. Reiterative growth in the complex adaptive architecture of the Paleozoic (Pennsylvanian) filicalean fern *Kaplanopteris clavata*. Plant Systematics and Evolution 270: 209-216.

191. Johnson, K., G. Mapes, L. Doguzhaeva and G.W. Rothwell. 2007. *Cardiocarpus angarensis* sp. nov., and the Late Paleozoic diversity of Angaran coniferophytes. Botanical Journal of the Linnean Society 155: 297-305.

190. Sanders, H., G.W. Rothwell and S. Wyatt. 2007. A paleontological context for the developmental mechanisms of evolution. International Journal of Plant Sciences 178: 719-728.

189. Stockey, R.A., G.W. Rothwell and K.R. Johnson. 2007. *Cobbania corrugata* (Lesquereux) gen. et comb. nov. (Araceae): a floating aquatic monocot from the Upper Cretaceous of North America. American Journal of Botany 94: 609-624.

188. Stockey, R.A. and G.W. Rothwell. 2007. Erratum to "Stockey, R.A. and Rothwell. G.W., 2004. Cretaceous tree ferns of western North America: *Rickwoodopteris hirsuta* gen. et sp. nov. (Cyatheaceae s.l.) Review of Palaeobotany and Palynology 144: 363-364.

187. Bateman, R.M., P. Kenrick, and G.W. Rothwell. 2007. Do eligulate herbacous lycopsids occur in Palaeozoic strata? *Hestia eremosa* gen. et sp. nov. from the Dinantian of Oxroad Bay, East Lothian, Scotland. Review of Palaeobotany and Palynology 144: 323-335.

186. Rothwell, G. W., G. Mapes, J. Hilton, and N. Hollingsworth. 2007. Anatomy of cheirolepidiaceous pollen cones; *Classostrobus crossii* sp. nov. International Journal of Coal Geology 69: 55-57.

185. Little, S.A., R.A. Stockey and G.W. Rothwell. 2006. *Solenostelopteris skogiae* sp. nov. from the Lower Cretaceous of Vancouver Island. Journal of Plant Research 119: 525-532.

184. Tomescu, A. M. F., G.W. Rothwell and R. Honegger. 2006. Cyanobacterial macrophytes in an Early Silurian (Llandovery) continental biota: Passage Creek, lower Massanutten Sandstone, Virginia, USA.Lethaia 39: 329-338.

183. Rothwell, G.W. and K.C. Nixon. 2006. How does the inclusion of fossil data change our conclusions about the phylogenetic history of the euphyllophtes? International Journal of Plant Sciences 167: 737-749.

182. Little, S.A., R.A. Stockey and G.W. Rothwell. 2006. *Stramineopteris aureopilosus* gen. et sp. nov., anatomically preserved ferns in the resolution of filicalean phylogeny. International Journal of Plant Sciences 167: 683-694.

181. Hernandez-Castillo, G. R., R. A. Stockey and G. W. Rothwell. 2006. *Anemia quatsinoense sp. nov.* (Schizaeaceae), a permineralized fern from the Lower Cretaceous of Vancouver Island. International Journal of Plant Sciences 167: 665-647.

180. Zhou, Y-L., S-J. Wang, J Hilton and G.W. Rothwell. 2006. *Achlamydocarpon* *pingquanensis* sp. nov. (Lycopsida): A novel anatomically preserved lepidodendralean disseminule from the Lower Permian of north China. International Journal of Plant Sciences 167: 567-577.

179. Trivett, M.L., R.A. Stockey, G.W. Rothwell and G. Beard. 2006. *Paralygodium vancouverensis* sp. nov. (Schizaeaceae), additional evidence for filicalean diversity in the Paleogene of North America. International Journal of Plant Sciences 167: 675-681.

178. Serbet, R. and G.W. Rothwell. 2006. Anatomically preserved ferns from the Late Cretaceous of western North America II: Blechnaceae/Dryopteridaceae. International Journal of Plant Sciences 167: 703-709.

177. Tomescu, A.M.F., G.W. Rothwell and M.L. Trivett. 2006. Kaplanopteridaceae Fam. Nov., additional diversity in the initial radiation of filicalean ferns. International Journal of Plant Sciences 167:615-630.

176. Rothwell, G.W. and M.T. Dunn. 2006. A century of seed ferns: Introduction to the symposium. Journal of the Torrey Botanical Society 133: 4-6.

175. Stockey, R.A., Lantz, T.C. and G.W. Rothwell. 2006. *Speirseopteris orbiculata* sp. nov. (Thelypteridaceae) a derived fossil filicalean from the Paleocene of western North America. International Journal of Plant Sciences 167: 729-736.

174. Smith, S.Y., R.A. Stockey, H. Nishida and G.W. Rothwell*.* 2006*. Trawetsia princetonense* gen. et sp. nov. (Blechnaceae): a permineralized fern from the Middle Eocene Princeton Chert. International Journal of Plant Sciences 167: 711-719.

173. Vavrek, M.J., R.A. Stockey, and G.W. Rothwell. 2006. *Osmunda vancouverense* sp. nov. (Osmundaceae), permineralized fertile frond segments from the Lower Cretaceous of British Columbia, Canada. International Journal of Plant Sciences 167: 631-637.

172. Mindell, R.A., R.A. Stockey, G.W. Rothwell, and G. Beard. 2006. *Gleichenia appianense* sp. nov. (Gleicheniaceae), a permineralized rhizome and associated vegetative remains from the Eocene of Vancouver Island, British Columbia. International Journal of Plant Sciences 167: 639-647.

171. Rothwell, G.W. 2006. Dedication: To "the upward outlook" of Wilson Nichols Stewart. Journal of the Torrey Botanical Society 133: 1-3.

170. Karafit, S.J., G.W. Rothwell, R.A. Stockey, and H. Nisihida. 2006. *Dickwhitea allenbyensis* gen. et sp. nov. (Athyriaceae), a dryopterid filicalean from the Middle Eocene Princeton Chert of British Columbia, Canada. International Journal of Plant Sciences 167: 721-727.

169. Stockey, R.A. and G.W. Rothwell. 2006. Introduction: Evolution of Modern Ferns. International Journal of Plant Sciences, 167: 613-614.

168. Stockey, R.A., G.W. Rothwell and S.A. Little. 2006. Relationships among fossil and living Dipteridaceae: Anatomically preserved *Hausmannia* from the Lower Cretaceous of Vancouver Island. International Journal of Plant Sciences, 167: 649-663.

167. Rothwell, G.W. and R.A. Stockey. 2006. Combining characters of Pteridaceae and tree ferns: *Pterisorus radiata* gen. et. sp. nov., a permineralized Lower Cretaceous filicalean fern. International Journal of Plant Sciences, 167: 695-701.

166. Dunn, M. T., G. W. Rothwell, and G. Mapes. 2006. The Fayetteville Flora of Arkansas (USA): A Snapshot of Terrestrial Vegetation Patterns within a Clastic Swamp at Upper Mississippian Time. P. 127-137. In: DiMichele, W.A, and S. Greb, eds. Wetland paleoecology through time. Geological Society of America, Special Paper 139.

165. Tomescu, A.M.F. and G.W. Rothwell. 2006. Wetlands before tracheophytes: Thalloid terrestrial communities of the Early Silurian Passage Creek biota (Virginia). P. 41-56. In: DiMichele, W.A, and S. Greb, eds. Wetland paleoecology through time. Geological Society of America, Special Paper 139.

164. Stockey, R.A., Kvaček, J., Hill, R.S., Rothwell, G.W., and Kvaĉek, Z. 2005. Fossil record of Cupressaceae s.lat. P. 54-68. In: Farjon, A., A monograph of Cupressaceae and *Sciadopitys*. Roy. Bot. Gard. Kew Publication, Kew, UK.

163. Archibald, S.B, K.B. Pigg, D.R. Greenwood, S.R. Manchester, L. Barksdale, K.R. Johnson, M. Sternberg, R.A. Stockey, M.L. DeVore and G.W. Rothwell. 2005. Wes Wehr dedication. Canadian Journal of Earth Sciences 42: 115-117.

162. Rothwell, G. W. and S. Lev-Yadun. 2005. 375 million-year-old fossil evidence of polar auxin flow. American Journal of Botany 92: 903-906.

161. Rothwell, G. W., G. Mapes, and G.R. Hernandez-Castillo. 2005. *Hanskerpia* gen. nov. and phylogenetic relationships among the most ancient conifers (Voltziales) Taxon 54: 733-750.

160. Serbet, R and G.W. Rothwell. 2004. Anatomically preserved ferns from the Late Cretaceous of western North America; Dennstaedtiaceae. International Journal of Plant Sciences 164: 1041-1051.

159. Stockey, R. A. and G. W. Rothwell. 2004. Cretaceous tree ferns of western North America: *Rickwoodopteris hirsuta* (Cyatheaceae s.l). Review of Palaeobotany and Palynology 132: 103-114.

158. Rothwell, G. W., M. R. Van Atta, H. E. Ballard, Jr. and R. A. Stockey. 2004. Molecular phylogenetic relationships among Lemnaceae and Araceae using the Chloroplast trnL-trnF intergenic spacer. Molecular Phylogenetics and Evolution 30: 378-385.

157. Serbet, R. and G. W. Rothwell. 2003. Anatomically preserved ferns from the Late Cretaceous of western North America; Dennstaedtiaceae. International Journal of Plant Sciences 164: 1041-1051.

156. Singh, K. J., G. W. Rothwell, G. Mapes and S. Chandra. 2003. Reinvestigation of the coniferophyte morphospecies *Buriadia heterophylla* Seward and Sahni, with reinterpretation of vegetative diversity and putative seed attachments. Review of Palaeobotany and Palynology 127: 25-43.

155. Mapes, Gene and G. W. Rothwell. 2003. Validation of the names Emporiaceae, *Emporia*, and *Emporia lockardii*. Taxon 52: 327-328.

154. Dunn, M. T., G. W. Rothwell, and G. Mapes. 2003. On Paleozoic plants from marine strata: *Trivena arkansana* gen. et sp. nov., a lyginopterid from the Fayetteville Formation (middle Chesterian/Upper Mississippian) of Arkansas, USA. American Journal of Botany 90: 1239-1252.

153. Rothwell, G. W. and G. Mapes. 2003. Validation of the names Utrechtiaceae, *Utrechtia*, and *Utrechtia floriniformis*. Taxon 52: 329-330.

152. Smith, S. Y., G. W. Rothwell and R. A. Stockey. 2003. *Cyathea cranhamii* sp. nov., anatomically preserved tree fern sori from the Lower Cretaceous of Vancouver Island, British Columbia. American Journal of Botany 90: 755-760.

151. Stockey, Ruth A. and G. W. Rothwell. 2003. Anatomically preserved *Williamsonia* (Williamsoniaceae): evidence for bennettitalean reproduction in the Late Cretaceous of western North America. International Journal of Plant Sciences 164: 251-262.

150. Rothwell, G. W. 2003. Plants invade the land (perspectives in paleobiology and earth history), Gensel, P. G. and Edwards, D. Eds. Colulmbia University Press, New York, 304 pp. (book review). Plant Systematics and Evolution 232; 133-134.

149. Hernandez-Castillo, G. R., G. W. Rothwell, R. A. Stockey and G. Mapes. 2003. Growth architecture of *Thucydia mahoningensis*, a model for primitive walchian conifer plants. International Journal of Plant Sciences 164: 443-452.

148. Dunn, M. T., M. Krings, G. Mapes, G. W. Rothwell, R. H. Mapes, K-Q Sun. 2003. *Medullosa steinii* sp. nov., a seed fern vine from the Late Mississippian. Review of Palaeobotany and Palynology 124: 307-324.

147. Rothwell, G. W. 2002. Coal Balls: remarkable evidence for Paleozoic fossil plants and the communities in which they grew. P. 47-63. In: Barthel, M., Dernbach, U., Galtier, J., Jung, W., Kerp, H., Noll, R., Rößler, R., Rothwell, G.W., Selmeier, A., Stockey, R. A., Tidwell, W. D., Wild, V. and Wright, W.W. Secrets of petrified plants. D=ORO Verlag, Heppenheim, Germany.

146. Rothwell, G. W. and R. A. Stockey. 2002. Anatomically preserved *Cycadeoidea* (Cycadeoidaceae), with a reevaluation of the systematic characters for the seed cones of Bennettitales. American Journal of Botany 89: 1447-1458.

145. Dunn, M. T., G. W. Rothwell, and G. Mapes. 2002. Additional observations on *Rhynchosperma quinnii* (Medullosaceae): a permineralized ovule from the Chesterian (Upper Mississippian) Fayetteville Formation of Arkansas. American Journal of Botany 89: 1799-1808.

144. Rothwell, G. W., E. L. Taylor and T. N. Taylor. 2002. *Ashicaulis woolfei* n. sp, additional evidence for the antiquity of osmundaceous ferns from the Triassic of Antarctica. American Journal of Botany 89: 352-361.

143. Tomescu, A. M. F., G. W. Rothwell and G. Mapes. 2001. *Lyginopteris royali* sp. nov. from the Upper Mississippian of North America. Review of Palaeobotany and Palynology 116: 159-173.

142. Dunn, M. T., G. Mapes and G. W. Rothwell. 2001. On Paleozoic plants from marine strata: *Hexaloba finisensia* new genus and species, a trigonocarpalean ovule from the Virgilian (Gzhelian) Finis Shale of Texas. Journal of Paleontology 76: 173-180.

141. Hilton, J., G. W. Rothwell, J. Galtier, C. Li and S. Wang. 2001. Permineralized cardiocarpalean ovules in wetland vegetation from Early Permian volcanoclastic sediments of China. Palaeontology 44: 811-825.

140. Hernandez-Castillo, G. R., G. W. Rothwell and G. Mapes. 2001. *Thucydiaceae* fam. nov., with a review and reevaluation of Paleozoic walchian conifers. International Journal of Plant Sciences 162: 1155-1185.

139. Ratzel, S. R., G. W. Rothwell, G. Mapes, R. H. Mapes, and L. A. Doguzhaeva. 2001. *Pityostrobus hokodzensis*, a new species of pinaceous cone from the Cretaceous of Russia. Journal of Paleontology 75: 895-900.

138. Hernandez-Castillo, G. R., G. W. Rothwell and G. Mapes. 2001. Compound pollen cones in Paleozoic conifers. American Journal of Botany 88: 1139-1142.

137. Pigg, K. B. and G. W. Rothwell. 2001. Anatomically preserved *Woodwardia virginica* (Blechnaceae) and a new filicalean fern from the middle Miocene Yakima Canyon flora of central Washington, USA. American Journal of Botany 88: 777-787.

136. Rothwell, G. W. and G. Mapes. 2001. *Barthelia furcata* gen. et sp. nov., with a review of Paleozoic coniferophytes and a discussion of coniferophyte systematics. International Journal of Plant Sciences 162: 637-667.

135. Stockey R. A., G. W. Rothwell, H. D. Addy and R. S. Currah. 2001. Mycorrhizal association of the extinct conifer *Metasequoia milleri*. Mycological Research 105: 202-205.

134. Stockey R. A., G. W. Rothwell and A. B. Falder. 2001. Diversity among taxodioid conifers; *Metasequoia foxii* sp. nov. from the Paleocene of central Alberta, Canada. International Journal of Plant Sciences 162: 221-234.

133. Rothwell, G. W. and C. W. Good. 2000. Reconstruction of the Pennsylvanian age filicalean fern *Botryopteris tridentata*. International Journal of Plant Sciences 161: 495-507.

132. Rothwell, G. W., L. Grauvogel-Stamm and G. Mapes. 2000. An herbaceous fossil conifer: Gymnospermous ruderals in the evolution of Mesozoic vegetation. Palaeogeography, Palaeoclimatology, Palaeoecology 156:139-145.

131. Yao, Z., L. Liu, G. W. Rothwell and G. Mapes. 2000. *Szecladia* gen. nov., an Upper Permian conifer with multiveined leaves from South China. Journal of Paleontology 74: 524-531.

130. Yao, Z., L.Liu, G. Mapes and G. W. Rothwell. 2000. Leaf Morphology and Cuticular Anatomy of *Sphenophyllum* in the *Gigantopteris* flora from South China. Review of Palaeobaotany and Palynology 110: 67-92.

129. Mapes, G. and G.W. Rothwell. 2000. Conifer. McGraw-Hill 2000 Yearbook of Science & Technology, pp. 92-95.

128. Rothwell, G.W. 1999. Gnetophytes. Encyclopedia of Paleontology, Fitzroy Dearborn Publishers.

127. Lantz, T. C., G. W. Rothwell and R. A. Stockey. 1999. *Conantiopteris schuchmanii* gen. et sp. nov., and the role of fossils in resolving the phylogeny of Cyatheaceae. Journal of Plant Research 112: 361-381.

126. Falder, A. B., R. A. Stockey, and G. W. Rothwell. 1999. In situ fossil seedlings of a *Metasequoia*-like taxodiaceous conifer from Paleocene river floodplain deposits of central Alberta, Canada. American Journal of Botany 86: 900-902.

125. Stockey, R. A., H. Nishida and G. W. Rothwell. 1999. Permineralized ferns from the middle Eocene Princeton Chert. I. *Makotopteris princetonensis* gen. et sp. nov. (Athyriaceae). International Journal of Plant Sciences 160:1047-1055.

124. Rothwell, G. W. 1999. Fossils and ferns in the resolution of land plant phylogeny. Botanical Review 65:188-218.

123. Serbet, R. and G. W. Rothwell. 1999. *Osmunda cinnamomea* (Osmundaceae) in the Cretaceous of Western North America; additional evidence for exceptional species longevity among filicalean ferns. International Journal of Plant Sciences 160: 425-433.

122. Falder, A. B., G. W. Rothwell, G. Mapes, R. H. Mapes and L. A. Doguzhaeva. 1998. *Pityostrobus milleri* n. sp., a pinaceous cone from the Lower Cretaceous (Aptian) of southwestern Russia. Review of Palaeobotany and Palynology 103: 253-261.

121. Mapes, G., and G. W. Rothwell. 1998. Pollen cone structure of the Late Pennsylvanian (Stephanian) conifer *Emporia*. Journal of Paleontology 72: 571-576.

120. Rothwell, G. W. 1998. The evolutionary biology of Plants, by J.K. Niklas (Book Review). Review of Palaeobotany and Palynlogy 193: 295-297.

119. Rothwell, G. W. 1998. Life on Earth, Paleobotany. Geotimes 43:44-45.

118. Rothwell, G. W. and B. F. Holt. 1997. Fossils and phenology in the evolution of *Ginkgo biloba*. P. 223-230, In: Hori, T., R.W. Ridge, W. Tulecke, P. Del Tredici, J. Trémouillaux-Guiller and H. Tobe (Eds.), Springer, Tokyo.

117. Holt, B. F. and G. W. Rothwell. 1997. Is *Ginkgo biloba* (Ginkgoaceae) really an oviparous plant? American Journal of Botany 84: 870-872.

116. LePage, B. A., R. S. Currah, R. A. Stockey and G. W. Rothwell. 1997. Fossil ectomycorrhizae from the Middle Eocene. American Journal of Botany. 84: 410-412.

115. Stockey, R A. and G. W. Rothwell. 1997. An Upper Cretaceous aquatic angiosperm from the Maastrictian St. Mary River Formation of southern Alberta. International Journal of Plant Science 158: 83-94.

114. Stockey, R. A., G. L. Hoffman and G. W. Rothwell. 1997. The fossil monocot *Limnobiophyllum scutatum*: resolving the phylogeny of Lemnaceae. American Journal of Botany 84: 355-368.

113. Rothwell, G. W., G. Mapes and R. H. Mapes. 1997. Late Paleozoic conifers of North America; structure, diversity and occurrences. Review of Palaeobotany and Palynology 95: 95-113.

112. Rothwell, G. W. 1996. Phylogenetic relationships of ferns; a paleobotanical perspective. P. 395-404. In (Camus, J., M. Gibby and R.J. Johns, eds.), Pteridology in Perspective, Royal Botanic Gardens, Kew.

111. Rothwell, G. W., G. Mapes and R. H. Mapes. 1996. Anatomically preserved vojnovskyalean seed plants in Upper Pennsylvanian (Stephanian) marine shales of North America. Journal of Paleontology 70: 1067-1079.

110. Rothwell, G. W. 1996. Pollen Cone. Academic American Encyclopedia.

109. Rothwell, G. W. 1996. Pteridophytic evolution: An often underappreciated phytological success story. Review of Palaeobotany and Palynology 90: 209-222.

108. Rice, J., G. W. Rothwell, G. Mapes and R. H. Mapes. 1996. *Suavitas imbricata* gen. et sp. nov., an anatomically preserved seed analogue from Upper Pennsylvanian marine deposits of midcontinent North America. American Journal of Botany 83: 1083-1090.

107. Rothwell, G. W. 1995. Conifer. Academic American Encyclopedia.

106. Bateman, R. M., G. W. Rothwell and C. J. Cleal. 1995. Oxroad Bay. pp. 127-139. In: Cleal, C. J. and B. A. Thomas, eds, Geological Conservation Review: Paleobotany. English Nature, London, U.K.

105. Serbet, R., and G. W. Rothwell. 1995. Functional morphology and homologies of gymnospermous ovules: Evidence from a new species of *Stephanospermum* (Medullosales). Canadian Journal of Botany 73: 650-661.

104. Rothwell, G. W. 1995. The fossil history of branching: Implications for the phylogeny of land plants. Pp. 71-86, In: Hoch, P. C. and A. G. Stephenson, eds., Experimental and Molecular approaches to plant biosystematics. Missouri Botanical Garden, St. Louis.

103. Rothwell, G. W. 1994. Phylogenetic relationships among ferns and gymnosperms; an overview. Journal of Plant Research 107: 411-416.

102. Rothwell, G. W., and R. A. Stockey. 1994. Pteridophytes and gymnosperms: Current concepts of structure, evolutionary history, and phylogeny. Journal of Plant Research 107: 409.

101. Rothwell, G. W., and R. Serbet. 1994. Lignophyte phylogeny and the evolution of spermatophytes; a numerical cladistic analysis. Systematic Botany 19: 443-482.

100. Rothwell, G. W. Reproduction (plant). 1994. 1994 Yearbook of Science and Technology. McGraw-Hill, Inc., pp. 318-320.

99. Rothwell, G. W., and R. A. Stockey. 1994. The role of *Hydropteris pinnata* gen. et sp. nov. in reconstructing the phylogeny of heterosporous ferns. American Journal of Botany 81: 479-492.

98. Rothwell, G. W. 1993. *Cordaixylon dumusum* (Cordaitales). II. Reproductive biology, phenology and growth ecology. International Journal of Plant Science 154: 572-586.

97. Serbet, R. and G. W. Rothwell. 1992. Characterizing the most primitive seed ferns. I. A reconstruction of *Elkinsia polymorpha*. International Journal of Plant Science 153: 602-621.

96. Rothwell, G. W., and A. C. Scott. 1992. *Stamnostoma oliveri*, a gymnosperm with systems of ovulate cupules from the Lower Carboniferous (Dinantian) floras at Oxroad Bay, East Lothian, Scotland. Review of Palaeobotany and Palynology 72: 273-284.

95. Rothwell, G. W., and J. M. Pryor. 1991. Developmental dynamics of arborescent lycophytes; Capical and lateral growth in *Stigmaria ficoides*. American Journal of Botany 78: 1740-1745.

94. Rothwell, G. W., and R. Serbert. 1991. Pollination biology of *Elkinsia polymorpha*, implications for the origin of gymnosperms. In: F. Schaarschmidt, ed. Special issue: International symposium on palaeobotany; anatomical investigations of fossil plants. Cour. Forschungsinst. Senckenb. 147: 225-231.

93. Rothwell, G. W., and R. A. Stockey. 1991. *Onoclea sensibilis* in the Paleocene of North America, a dramatic example of structural and ecological stasis. Review of Palaeobotany and Palynology 70: 113-124.

92. Rothwell, G. W., and J. M. Basinger. 1991. Introduction, Paleobotany in Canada. Review of Palaeobotany and Palynology 70: 1-2.

91. Mapes, G., and G. W. Rothwell. 1991. Structure and relationships of primitive conifers. Neus Jahrbuch fur Geol. Palaontol., Stuttgart. 183: 269-287.

90. Trivett, M. L., and G. W. Rothwell. 1991. Diversity among Paleozoic Cordaitales. Neus Jahrbuch fur Geol. Palaontol., Stuttgart. 183: 289-305.

89. Rothwell, G. W. 1991. Evolution and Paleobotany. Encyclopedia Brittanica pp. 791-793.

88. Rothwell, G. W. 1990. *Botryopteris forensis* (Botryopteridaceae), a trunk epiphyte of the tree fern *Psaronius*. American Journal of Botany 78: 782-788.

87. Bateman, R. M., and G. W. Rothwell. 1990. A reappraisal of the Dinantian floras at Oxroad Bay, East Lothian, Scotland, I. Floristics and the development of whole plant concepts. Transactions of the Royal Society of Edinburgh (Earth Sciences) 81: 127-159.

86. Stubblefield, S. P., and G. W. Rothwell. 1989. *Cecropsis luculentum* gen. nov., evidence for heterosporous progymnosperms in the Upper Pennsylvanian of North America. American Journal of Botany 76: 1,415-1,428.

85. Erwin, D. M., and G. W. Rothwell. 1989. *Gillespia randolphensis* sp. nov. (Stauropteridales), from the Upper Devonian of West Virginia. Canadian Journal of Botany 67: 3063-3077.

84. Rothwell, G. W., S. E. Scheckler, and W. H. Gillespie. 1989. *Elkinsia* gen. nov., a Late Devonian gymnosperm with cupulate ovules. Botanical Gazette 150: 170-189.

83. Rothwell, G. W., and D. C. Wight. 1989. *Pullaritheca longii* gen. nov. and *Kerrya mattenii* gen. et sp. nov., Lower Carboniferous cupules with ovules of the *Hydrasperma*-type. Review of Palaeobotany and Palynology 60: 295-310.

82. Rothwell, G. W., and R. A. Stockey. 1989. Fossil Ophioglossales in the Paleocene of western North America. American Journal of Botany 76: 637-644.

81. Mapes, G., G. W. Rothwell, and M. T. Haworth. 1989. Evolution of seed dormancy. Nature 337: 645-646.

80. Feng, B. C., and G. W. Rothwell. 1989. Microsporangiate cones of *Mazocarpon bensonii* from the Upper Pennsylvanian of the Appalachian Basin. Review of Palaeobotany and Palynology 57: 289-297.

79. Rothwell, G. W. Cordaitales. 1988. In: C.B. Beck (ed.), Origin and Evolution of Gymnosperms. Columbia University Press. pp. 273-297.

78. Good, C. S., and G. W. Rothwell. 1988. A reinterpretation of the Paleozoic fern *Norwoodia angustum*. Review of Palaeobotany and Palynology 56: 199-204.

77. Rothwell, G. W., and S. E. Scheckler. 1988. Biology of ancestral gymnosperms. In: C.B. Beck, Ed. Origin and Evolution of Gymnosperms. Columbia University Press. pp. 85-134.

76. Mapes, G., and G. W. Rothwell. 1988. Diversity among Hamilton conifers. In: G. Mapes and R. H. Mapes, eds., Regional geology and paleontology of upper Paleozoic Hamilton quarry area in southeastern Kansas, Kansas Geological Survey Guidebook Series 6: 225-244.

75. Rothwell, G. W., and G. Mapes. 1988. Vegetation of a Paleozoic conifer community. In: G. Mapes and R. H. Mapes, eds., Regional geology and paleontology of upper Paleozoic Hamilton quarry area in southeastern Kansas, Kansas Geological Survey Guidebook Series 6: 213-224.

74. Trivett, M. L., and G. W. Rothwell. 1988. Modeling the growth architecture of fossil plants: A Paleozoic Filicalean fern. Evolutionary Trends in Plants 2: 25-29.

73. Rothwell, G. W. 1988. Upper Pennsylvanian Steubenville coal-ball flora. Ohio Journal of Science 88: 61-64.

72. Trivett, M. L., and G. W. Rothwell. 1988. Diversity among Paleozoic Cordaitales: The vascular architecture of *Mesoxylon birame* Baxter. Botanical Gazette 149: 116-125.

71. Hamer, J. J., and G. W. Rothwell. 1988. The vegetative structure of *Medullosa endocentrica* Baxter (Pteridospermopsida). Canadian Journal of Botany 66: 375-387.

70. Rothwell, G. W., and A. C. Scott. 1988. *Heterotheca* Benson; Lyginopterid pollen organs or coprolites? Bulletin of the British Museum (N.H.), Geology 44: 41-43.

69. Rothwell, G. W. 1987. Paleobotany, Origin of gymnosperms. McGraw-Hill Yearbook of Science and Technology, New York. McGraw-Hill Book Co., New York, pp. 141-143.

68. Rothwell, G. W., and D. M. Erwin. 1987. Origin of seed plants: an aneurophyte-seed fern link elaborated. American Journal of Botany 74: 970-973.

67. Rothwell, G. W. 1987. Complex Paleozoic Filicales in the evolutionary radiation of ferns. American Journal of Botany 74: 458-461.

66. Rothwell, G. W. 1987. The role of development in plant phylogeny: A paleobotanical perspective. Review of Palaeobotany and Palynology 50: 97-114.

65. Rothwell, G. W. 1986. Classifying the earliest gymnosperms. In: Spicer, R. A., and B. A. Thomas eds., Systematic and taxonomic approaches in Paleobotany. The Systematics Association Special Volume No. 31, Linnean Society of London, Academic Press, London, pp. 137-161.

64. Rothwell, G. W., and D. A. Eggert. 1986. A monograph of *Dolerotheca* Halle, and related complex permineralized medullosan pollen organs. Transactions of the Royal Society of Edinburgh, Earth Sciences 77: 47-79.

63. Mickle, J. E., and G. W. Rothwell. 1986. Vegetative and fertile structures of *Cyathotheca ventilaria* from the Upper Pennsylvanian of the Appalachian Basin. American Journal of Botany 73: 1474-1485.

62. Rothwell, G. W., C. B. Beck, and R. Schmid. 1985. Objective science or evolutionary speculation?; a reply to P. B. Tomlinson. Taxon 34: 269-271.

61. Pigg, K. B., and G. W. Rothwell. 1985. Cortical development in *Chaloneria cormosa* (Isoetales), and the biological derivation of compressed lycophyte decortication taxa. Palaeontology 28: 545-553.

60. Riggs, S. D., and G. W. Rothwell. 1985. *Sentistrobus goodii* n. sp., a permineralized sphenophyllalean cone from the Upper Pennsylvanian of the Appalachian Basin. Journal of Paleontology 59: 1194-1202.

59. Rothwell, G. W. 1985. The role of comparative morphology and anatomy in interpreting the systematics of fossil gymnosperms. Botanical Review 51: 319-327.

58. Trivett, M. L., and G. W. Rothwell. 1985. Morphology, systematics, and paleocology of Paleozoic fossil plants: *Mesoxylon priapi*, sp. nov. (Cordaitales). Systemic Botany. 10: 205-223.

57. Rothwell, G. W., and D. M. Erwin. 1985. The rhizomorph apex of *Paurodendron*; implications for homologies among the rooting organs of Lycopsida. American Journal of Botany 72: 86-98.

56. Rothwell, G. W., and S. Warner. 1984. *Cordaixylon dumusum* n. sp. (Cordaitales). I. vegetative structures. Botanical Gazette 145: 275-291.

55. Rothwell, G. W. 1984. The apex of *Stigmaria* (Lycopsida), rooting organ of Lepidodendrales. American Journal of Botany 71: 1031-1034.

54. Stubblefield, S. P., G. W. Rothwell, and T. N. Taylor. 1984. *Conostoma williamsonii* n. sp., a lagenostomalean ovule from the Pennsylvanian of the Illinois Basin. Canadian Journal of Botany 62: 96-101.

53. Mapes, G., and G. W. Rothwell. 1984. Permineralized ovulate cones of *Lebachia* from Late Paleozoic limestones of Kansas. Palaeontology 27: 69-94.

52. Hamer, J. J., and G. W. Rothwell. 1983. *Phillipopteris* gen. nov., anatomically preserved sporangial fructifications from the Upper Pennsylvanian of the Appalachian Basin. American Journal of Botany 70: 1378-1385.

51. Millay, M. A. and G. W. Rothwell. 1983. Fertile pinnae of *Biscalitheca* (Zygopteridales) from the Upper Pennsylvanian of the Appalachian Basin. Botanical Gazette 144: 589-599.

50. Rothwell, G. W., and A. C. Scott. 1983. Coprolites within marattiaceous fern stems (*Psaronius*) from the Pennsylvanian of the Appalachian Basin, U.S.A. Palaeogeography, Palaeoclimatology, Palaeoecology 41: 227-232.

49. Pigg, K. B., and G. W. Rothwell. 1983. Megagametophyte development in the Chaloneriaceae fam. nov., permineralized Paleozoic Isoetales (Lycopsida). Botanical Gazette 144: 297-302.

48. Pigg, K. B., and G. W. Rothwell. 1983. *Chaloneria* gen. nov., heterosporous lycophytes from the Pennsylvanian of North America. Botanical Gazette 144: 132-147.

47. Rothwell, G. W. 1984. The Evolution of Plants and Flowers. (Book Review) Review of Palaeobotany and Palynology 41: 353.

46. Jennings, J. E., E. E. Karrfalt, and G. W. Rothwell. 1983. Structure and affinities of *Protostigmaria eggertiana*. American Journal of Botany 70: 963-974.

45. Beck, C. B., R. Schmid, and G. W. Rothwell. 1982. Stelar morphology and the primary vascular system of seed plants. Botanical Review 48: 691-815, 913-931.

44. Rothwell, G. W., and T. N. Taylor. 1982. Early seed plant wind pollination studies: A commentary. Taxon 31: 308-309.

43. Rothwell, G. W. 1982. New interpretations of the earliest conifers. Review of Palaeobotany and Palynology 37: 7-28.

42. Rothwell, G. W., and J. E. Mickle. 1982. *Rhetinotheca patens* n. sp., a medullosan pollen organ from the Upper Pennsylvanian of North America. Review of Palaeobotany and Palynology 36: 361-374.

41. Good, C. W., G. W. Rothwell, and T. N. Taylor. 1982. A new *Stephanospermum* from the Appalachian Basin of North America. Review of Palaeobotany and Palynology 36: 231-240.

40. Rothwell, G. W., and D. A. Eggert. 1982. What is the vascular architecture of complex medullosan pollen organs? American Journal of Botany 69: 641-643.

39. Taylor, T. N., and G. W. Rothwell. 1982. Studies of seed fern pollen: Development of the exine in *Monoletes* (Medullosales). American Journal of Botany 69: 570-578.

38. Mickle, J. E., and G. W. Rothwell. 1982. *Alethopteris* from the Upper Pennsylvanian of Ohio and Illinois. Journal of Paleontology 36: 392-402.

37. Rothwell, G. W., and A. H. Blickle. 1982. *Psaronius magnificus* n. comb., a marattialean fern from the Upper Pennsylvanian of North America. Journal of Paleontology 36: 259-268.

36. Rothwell, G. W. 1981. *Cordaianthus duquesnensis* sp. nov., anatomically preserved ovulate cones from the Upper Pennsylvanian of Ohio. American Journal of Botany 68: 239-247.

35. Gillespie, W. H., G. W. Rothwell, and S. E. Scheckler. 1981. The earliest seeds. Nature 293: 462-464.

34. Stubblefield, S. P., and G. W. Rothwell. 1981. Embryogeny and reproductive biology of *Bothrodendrostrobus mundus* (Lycopsida). American Journal of Botany 68: 625-634.

33. Knoll, A. H., and G. W. Rothwell. 1981. Paleobotany: Perspectives in 1980. Paleobiology 7: 7-35.

32. Rothwell, G. W. 1981. The Callistophytales (Pteridospermopsida); reproductively sophisticated Paleozoic gymnosperms. Review of Palaeobotany and Palynology 32: 103-121.

31. Rothwell, G. W. 1980. The Callistophytaceae (Pteridospermopsida): II. Reproductive Features. Palaeontographica 175B: 85-106.

30. Grove, G. G., and G. W. Rothwell. 1980. *Mitrospermum vinculum* sp. nov., a cardiocarpalean ovule from the Upper Pennsylvanian of Ohio. American Journal of Botany 67: 1051-1058.

29. Millay, M. A., G. W. Rothwell, and D. A. Eggert. 1980. Ultrastructure of *Stewartiotheca* (Medullosaceae) prepollen. American Journal of Botany 67: 223-227.

28. Mapes, G., and G. W. Rothwell. 1980. *Quaestora amplecta* gen. et sp. nov., a structurally simple medullosan stem from the Upper Mississippian of Arkansas. American Journal of Botany 67: 636-647.

27. Stubblefield, S. P., and G. W. Rothwell. 1980. *Conostoma chappelicum* n. sp., lagenostomalean ovules from Kentucky. Journal of Paleontology 54: 1012-1016.

26. Mickle, J. E., and G. W. Rothwell. 1979. *Bensoniotheca*, a new name for *Heterotheca* Benson. Taxon 28: 591.

25. Eggert, D. A., and G. W. Rothwell. 1979. *Stewartiotheca* gen. n., and the nature and origin of complex permineralized medullosan pollen organs. American Journal of Botany 66: 851-866.

24. Rothwell, G. W., and J. F. Basinger. 1979. *Metasequoia milleri* n. sp., anatomically preserved pollen cones from the Middle Eocene (Allenby Formation) of British Columbia. Canadian Journal of Botany 57: 958-970.

23. Pigg, K. B., and G. W. Rothwell. 1979. Stem-root transition of an Upper Pennsylvanian woody lycopsid. American Journal of Botany 66: 914-924.

22. Rothwell, G. W., T. N. Taylor, and C. Clarkson. 1978. On the structural similarity of the Paleozoic ovules *Conostoma platyspermum* and *C. leptospermum*. Journal of Paleontology 54: 1131-1133.

21. Rothwell, G. W. 1978. *Doneggia complura* gen. et sp. nov., a filicalean fern from the Upper Pennsylvanian of Ohio. Canadian Journal of Botany 56: 3096-3104.

20. Rothwell, G. W. 1977. Evidence for a pollination drop mechanism in Paleozoic pteridosperms. Science 198: 1251-1252.

19. Rothwell, G. W. 1977. The primary vasculature of *Cordaianthus concinnus*. American Journal of Botany 64: 1235-1241.

18. Basinger, J. F., and G. W. Rothwell. 1977. Anatomically preserved plants from the middle Eocene (Allenby Formation) of British Columbia. Canadian Journal of Botany 55: 1984-1990.

17. Rothwell, G. W. 1976. Petrified Pennsylvanian age plants of eastern Ohio. Ohio Journal of Science 76: 128-132.

16. Rothwell, G. W. 1976. A new pteropsid fructification from the Middle Pennsylvanian of Kansas. Palaeontology 19: 307-315.

15. Rothwell, G. W. 1976. Primary vasculature and gymnosperm systematics. Review of Palaeobotany and Palynology 22: 193-206.

14. Rothwell, G. W. 1975. The Callistophytaceae (Pteridospermopsida): I. vegetative structures. Palaeontographica 151B: 171-196.

13. Ramanujam, C. G. K., G. W. Rothwell, and W. N. Stewart. 1974. Probable attachment of the *Dolerotheca* campanulum to a *Myeloxylon-Alethopteris* type frond. American Journal of Botany 61: 1057-1066.

12. Basinger, J. F., G. W. Rothwell, and W. N. Stewart. 1974. Cauline vasculature and leaf trace production in medullosan pteridosperms. American Journal of Botany 61: 1002-1015.

11. Rothwell, G. W., and K. L. Whiteside. 1974. Rooting structures of the Carboniferous medullosan pteridosperms. Canadian Journal of Botany 52: 97-102.

10. Rothwell, G. W. 1973. Vegetative structures of the Callistophytaceae (Pteridospermopsida). Ph.D. dissertation, Univ. Alberta, 126 pp.

9. Rothwell, G. W., and T. N. Taylor. 1972. Carboniferous pteridosperm studies: morphology and anatomy of S*chopfiastrum decussatum*. Canadian Journal of Botany 50: 2649-2658.

8. Rothwell, G. W. 1972. *Palaeosclerotium pusillum* gen., et sp. nov., a fossil eumycete from the Pennsylvanian of Illinois. Canadian Journal of Botany 50: 2353-2356.

7. Rothwell, G. W. 1972. Pollen organs of the Pennsylvanian Callistophytaceae (Pteridospermopsida). American Journal of Botany 59: 993-999.

6. Rothwell, G. W. 1972. Evidence of pollen tubes in Paleozoic pteridosperms. Science 175: 772-774.

5. Rothwell, G. W., and T. N. Taylor. 1971. *Weissistachys kentuckiensis*: a new name for *Weissia kentuckiense* Rothwell and Taylor. Botanical Gazette 132: 371-372.

4. Rothwell, G. W. 1971. Ontogeny of the Paleozoic ovule: *Callospermarion pusillum*. American Journal of Botany 58: 706-715.

3. Rothwell, G. W., and T. N. Taylor. 1971. Studies of Paleozoic calamitean cones: *Weissia kentuckiense* gen., et sp. nov. Botanical Gazette 132: 215-224.

2. Rothwell, G. W. 1971. Additional observations on *Conostoma anglo-germanicum* and *C. oblongum* from the Lower Pennsylvanian of North America. Palaeontographica 131B: 167-178.

1. Rothwell, G. W., and D. A. Eggert. 1970. A *Conostoma* with a tentacular sarcotesta from the Upper Pennsylvanian of Illinois. Botanical Gazette 131: 359-366.

**Published Abstracts and Meetings Presentations**

2021a. June. Leaves of Araceae from the late Paleocene of Alberta, Canada: *Orontiophyllum grandifolium* comb. nov. Abstracts of the Virtual Midcontinent Paleobotanical Colloquium; MPC 2021. (Georgia L. Hoffman, Ruth A. Stockey, Gar W. Rothwell) <https://sites.google.com/berkeley.edu/mpc2021/abstracts>

2021b. June. Fossil spadices: *Bognerospadix* and the Paleocene diversification of Araceae. Abstracts of the Virtual Midcontinent Paleobotanical Colloquium; MPC 2021. (Ruth A. Stockey, Georgia L. Hoffman, Gar W. Rothwell). <https://sites.google.com/berkeley.edu/mpc2021/abstracts>

2021c. July. Mesozoic seed plant diversity; another Lower Cretaceous contribution from Apple Bay, Vancouver Island. 13th British Columbia Paleontology Symposium (Virtual) Abstracts p. 17-18. British Columbia Paleontology Alliance Vancouver, 2021. (Gar. W. Rothwell, Ashley A. Klymiuk and Ruth A. Stockey).

2021d. July. An exceptionally diverse permineralized bryophyte flora from the Late Cretaceous of Vancouver Island. 13th British Columbia Paleontology Symposium (Virtual) Abstracts p. 23-24. British Columbia Paleontology Alliance Vancouver, 2021. (Alex C. Bippus, Randel Mindel, Gar. W. Rothwell, and Ruth A. Stockey).

2021e. July. Fossil aroid spadices from British Columbia and Alberta. 13th British Columbia Paleontology Symposium (Virtual) Abstracts p. 12-13. British Columbia Paleontology Alliance Vancouver, 2021. (Ruth A. Stockey, Georgia L. Hoffman and Gar W. Rothwell).

2021f. July. Plant-fungal associations in endomycorrhizal root nodules of Early Cretaceous conifers (Vancouver Island, Canada). Abstract 68, 113th meeting of the Botanical Society of America, Virtual Botany Conference. (Yume Imada, Ruth A. Stockey, Gar. W. Rothwell and Alexandru M. F; Tomescu). <https://www.botanyconference.org/engine/search/index.php?func=detail&aid=68>

2021g. July. Mesozoic “cupulate” gymnosperms: how to distinguish Doyleales from Umkomasiales. Abstract 297, 113th meeting of the Botanical Society of America, Virtual Botany Conference. (Gar. W. Rothwell, Ashley A. Klymiuk and Ruth A. Stockey). <https://www.botanyconference.org/engine/search/index.php?func=detail&aid=297>

2021h. July. Structure and homologies of seed enclosing fructifications among Mesozoic “cupulate” gymnosperms. Abstract 301, 113th meeting of the Botanical Society of America, Virtual Botany Conference. (Ruth A. Stockey, Ashley A. Klymiuk and Gar. W. Rothwell). <https://www.botanyconference.org/engine/search/index.php?func=detail&aid=301>

2021f. July. Mesozoic seed plant diversity; another Lower Cretaceous contribution from Apple Bay, Vancouver Island. Virtual British Columbia Paleontological Association Symposium. (Gar W. Rothwell, Ashley A. Klymiuk and Ruth A. Stockey)

2021g. July. Fossil aroid spadices from British Columbia and Alberta. 2021. Virtual British Columbia Paleontological Association Symposium. (Ruth A. Stockey, Georgia L. Hoffman and Gar W. Rothwell)

2020a. May. Uncovering Mesozoic peat mo, ss diversity: permineralized Sphagnopsida (Bryophyta) from the Late Cretaceous of Vancouver Island, Canada. Abstracts (oral, posters) for Virtual MPC 2020; 37th Midcontinent Paleobotanical Colloquium, Burk Museum, Seattle, WA, USA (Alexander C. Bippus, Gar W. Rothwell, and Ruth A. Stockey). <https://sites.google.com/uw.edu/mpc2020virtualprogram/oral-presentations_1>

2020b. May. Diversity of ancient cunninghamioid conifers (Cupressaceae): two new permineralized ovulate cones from the Upper Cretaceous of Hokkaido, Japan. Abstracts (oral, posters) for Virtual MPC 2020; 37th Midcontinent Paleobotanical Colloquium, Burk Museum, Seattle, WA, USA (Brian Atkinson, Dori Contreras, Ruth A. Stockey and Gar W. Rothwell). <https://sites.google.com/uw.edu/mpc2020virtualprogram/oral-presentations_1>

2020c. May. Eulogy for Brian Axsmith. G. Rothwell, M. Dunn. Virtual MPC 2020; 37th Midcontinent Paleobotanical Colloquium, Burk Museum, Seattle, WA, USA. <https://sites.google.com/uw.edu/mpc2020virtualprogram/schedule>

2020d July. Evolutionary diversification of Cretaceous taiwanioid Cupressaceae. Abstract 179, 112th meeting of the Botanical Society of America, Virtual Botany Conference. (Rothwell, G.W., R.A. Stockey, and Selena S.Y. Smith). <https://www.botanyconference.org/engine/search/index.php?func=detail&aid=179>.

2020e July. Reconstruction of the Whole Plant *Tetrastichia bupatides* Gordon from the Devonian/Mississippian boundary of Scotland and Ireland. Abstract 387, 112th meeting of the Botanical Society of America, Virtual Botany Conference. (Michael Dunn, Gar Rothwell and Andrew Scott). <https://www.botanyconference.org/engine/search/index.php?func=detail&aid=378>.

2020f. July. Permineralized gametophytes from Vancouver Island reveal that peat mosses (Class Sphagnopsida) were anatomically diverse by the Late Cretaceous. . Abstract 662, 112th meeting of the Botanical Society of America, Virtual Botany Conference. (Alex Bippus, Ruth Stockey, and Gar Rothwell). <https://www.botanyconference.org/engine/search/index.php?func=detail&aid=662> .

2019a April. Characterizing a Late Cretaceous flora from the north slope of Alaska; revising the concept of *Parataxodium wigginsii* Arnold and Lowther. Abstracts of the 36th Midcontinent Paleobotanical Colloquium, Cameron University, Lawton, OK, USA (Gar W. Rothwell, Ruth A. Stockey and Selena Smith).

2019b July. *Liquidambar*-like infructescences from the Upper Cretaceous (Coniacian) Eden Main Quarry, Vancouver Island, British Columbia. Abstract 120, 111th meeting of the Botanical Society of America, Tucson, AZ, USA. (Alex Scharfstein, Ruth A. Stockey and Gar W. Rothwell). <https://2019.botanyconference.org/engine/search/index.php?func=detail&aid=120>

2019c July. A third tricostate moss from the Lower Cretaceous of Vancouver Island (British Columbia, Canada). Abstract 620, 111th meeting of the Botanical Society of America, Tucson, AZ, USA. (Torres, S.A., R.A. Stockey, G.W. Rothwell and A.M.F. Tomescu). <https://2019.botanyconference.org/engine/search/index.php?func=detail&aid=620>

2019d July. Cauline vascular architecture and leaf trace production of Early Permian Medullosa lucartii Goeppert and Stenzel. Abstract 120, 111th meeting of the Botanical Society of America, Tucson, AZ, USA. (G.W.Rothwell). <https://2019.botanyconference.org/engine/search/index.php?func=detail&aid=164>

2019e New details on the diversity of a Late Cretaceous flora from Hornby Island, British Columbia, Canada. Abstract 442, 111th meeting of the Botanical Society of America, Tucson, AZ, USA. (Jud, N., G.W. Rothwell, R.A. Stockey and G. Beard). <https://2019.botanyconference.org/engine/search/index.php?func=detail&aid=442>

2019f Uncovering Mesozoic polar bryophyte diversity: A permineralized haplolepideous moss gametophyte from the Late Cretaceous of the north slope of Alaska. Abstract 297, 111th meeting of the Botanical Society of America, Tucson, AZ, USA. (A. Bippus, G.W. Rothwell and R.A. Stockey). <https://2019.botanyconference.org/engine/search/index.php?func=detail&aid=297>

2018a June. Following in the footsteps of the great Chester Arnold; reexamining the Late Cretaceous *Parataxodium wigginsii* flora of Alaska’s north slope. Abstracts of the 35th Midcontinent Paleobotanical Colloquium, Athens, OH, USA (Gar W. Rothwell1and Ruth A. Stockey).

2018b June. A permineralized taiwanioid cupressaceous seed cone from the Cretaceous of Hobetsu, Hokkaido, Japan. Abstracts of the 35th Midcontinent Paleobotanical Colloquium, Athens, OH, USA (Ruth A. Stockey, Gar W. Rothwell1 and Harufumi Nishida).

2018c July. Late Cretaceous diversification of cupressaceous conifers; a taiwanioid seed cone from the Eden Main, Vancouver Island, British Columbia, Canada. Abstract 150, 110th meeting of the Botanical Society of America, Rochester, MN, USA. (Ruth A. Stockey, Gar W.Rothwell and Brian Atkinson). <http://www.botanyconference.org/engine/search/index.php?func=detail&aid=150>

2018d July. Early Cretaceous bryophyte biogeography: Insights from the west coast of North America. Abstract 706, 110th meeting of the Botanical Society of America, Rochester, MN, USA. (Alexander C. Bippus, Gar W. Rothwell, Ruth A. Stockey, and Alexandru M. F. Tomescu). <http://www.botanyconference.org/engine/search/index.php?func=detail&aid=706>

2018e July. Penetrating the perplexing Upper Cretaceous *Parataxodium* plexus from the Price Creek Formation of north slope Alaska - Will the real *Parataxodium* please stand up. Abstract 164, 110th meeting of the Botanical Society of America, Rochester, MN, USA. 2018. (G.W. Rothwell and Ruth A. Stockey) <http://www.botanyconference.org/engine/search/index.php?func=detail&aid=164>

2018f July. Seed plant phylogeny inferred from integrated analyses of morphological and molecular data. Abstracat 498,110th meeting of the Botanical Society of America, Rochester, MN, USA. 2018. (Mathews, Sarah; Campbell, Christopher; Cronn, Richard; Gernandt, David; Graham, Sean; Hansen, Kimberly; Holman, Garth; D. Kelch; Lam, Vivienne; Li, Jianhua; Liston, Aaron; Little, Damon; Mapes, Gene; Mei, Wenbin; Moore, Abigail; Ngalingum, Nathalie; Parks, Matthew; Peery, Rhiannon; Rai, Hardeep; Raubeson, Linda; Ross, Gregory; Rothwell, Gar; Ruhsam, Markus; Ryberg, Patricia E.; Schwarzbach, Andrea; Stevenson, Dennis; Stockey, Ruth; Yang, Yong.) <http://www.botanyconference.org/engine/search/index.php?func=detail&aid=498>

2018g August. The life and legacy of Thomas N. Taylor. European Palaeobotany and Palynology Congress, Dublin, Ireland (Rothwell, G.W., M. Krings, C.J. Harper and N.R. Cúneo).

2018h August. Diversification of crown group *Araucaria*: A seed cone from the mid-Cretaceous (Campanian) of Vancouver Island, British Columbia, Canada. European Palaeobotany and Palynology Congress, Dublin, Ireland (Stockey, R.A. and G.W. Rothwell).

2017a May. Confronting the confusing conundrum of Cretaceous cupressaceous conifers. 34th Midcontinent Paleobotanical Colloquium, University of Michigan, Ann Arbor, MI. (Serbet, R. and G.W. Rothwell) <https://sites.google.com/a/umich.edu/mpc2017/abstracts>

2017b June. *Cyacas*-like seeds in the Bajocian Stage of the Middle Jurassic. 109th meeting of the Botanical Society of America, Ft. Worth, TX. <http://2017.botanyconference.org/engine/search/index.php?func=detail&aid=358> (Rothwell, G.W., R.A. and D.W. Stevenson)

2017c June. A new Upper Cretaceous araucarian seed cone from the Brannen Lake locality (Campanian) of Vancouver Island, British Columbia. 108th meeting of the Botanical Society of America, Savannah, GA. (Stockey, R.A. and G.W. Rothwell) <http://2017.botanyconference.org/engine/search/index.php?func=detail&aid=416>

2017d June. Additional bryophyte diversity in the Lower Cretaceous of Vancouver Island (British Columbia, Canada): an anatomically-preserved tristichous moss. 108th meeting of the Botanical Society of America, Savannah, GA. (Savoretti, A., A. Bippus, R.A. Stockey, G.W. Rothwell and A. Tomescu) <http://2017.botanyconference.org/engine/search/index.php?func=detail&aid=219>

2016a May. A Tribute to Tom Taylor. 33rd Midcontinent Paleobotanical Colloquium. Cornell University, Ithaca, NY (Rothwell, G.W.). <https://www.youtube.com/watch?v=wFOrQZmrjvA>.

2016b August. Developing an organismal concept for the Late Cretaceous cupressaceous conifer *Drumhellera* Serbet and Stockey. Abstract 836, 108th meeting of the Botanical Society of America, Savannah, GA. (Serbet, R. and G.W. Rothwell) <http://www.botanyconference.org/engine/search/index.php?func=detail&aid=836>

2016c August. Equisetalean evolution in deep time. Abstract 734, 108th meeting of the Botanical Society of America, Savannah, GA. (Escapa, I.H., A. Tomescu, G.W. Rothwell, E. Andres). <http://www.botanyconference.org/engine/search/index.php?func=detail&aid=734>

2016d August. Horestails through form, space and Time; introduction and overview. Abstract 1005, 108th meeting of the Botanical Society of America, Savannah, GA. (Tomescu, A.M.F., I. Escapa, and G.W. Rothwell). <http://www.botanyconference.org/engine/search/index.php?func=detail&aid=1005>

2016e August. Initial radiation of asterids: earliest cornalean fossils. Abstracat 360, 108th meeting of the Botanical Society of America, Savannah, GA. (Atkinson, B.A., R.A. Stockey, G.W. Rothwell). <http://www.botanyconference.org/engine/search/index.php?func=detail&aid=360>

2016f August. Modularity and hierarchy: development meets the fossil record in a hypothesis for the origin of the *Equisetum* strobilus. Abstract 370, 108th meeting of the Botanical Society of America, Savannah, GA. (Tomescu, A., I.H. Escapa, G.W. Rothwell). <http://www.botanyconference.org/engine/search/index.php?func=detail&aid=370>

2016g August. Will the real Corystospermales please stand up. Abstract 365. Abstract 370, 108th meeting of the Botanical Society of America, Savannah, GA. (Rothwell, G.W., R.A. Stockey). <http://www.botanyconference.org/engine/search/index.php?func=detail&aid=365>

2016h October. Do fossils have a role in phylogenetic reconstruction? – if so, what? HennigXXXV, Museo Argentino de Ciencias Naturales “Bernardino Rivadavia”, Buenos Aires, Argentina. Program with Abstracts, p. 61 (Rothwell, G.W.).

2016i October. Exploring the early radiation of Cornales: New evidence from Upper Cretaceous fruits. Abstracts of IPC/IOPC 2016. October 23-28, The Bahia Othon Palace, Salvador, Bahia, Brazil. (Atkinson, B.A., R.A. Stockey, G.W. Rothwell).

2015a Midcontinent Paleobotanical Colloquium: past, present, and future. Abstracts of the 32nd Midcontinent Paleobotanical Colloquium. April 25-27, 2015. Humboldt State University, Arcada, CA.

2015b A cunninghamioid pollen cone cluster from the Appian Way (Eocene) of Vancouver Island. Abstract 423, 107th meeting of the Botanical Society of America, Edmonton, AB, Canada. (Stockey, R.A., Atkinson, B.A., Rothwell, G.W., Buckowski, E. and Bierd, G.) <http://2015.botanyconference.org/engine/search/index.php?func=detail&aid=423>

2015c Enclosed seeds from Apple Bay provide insights to Early Cretaceous gymnosperm diversity. Abstract 188, 107th meeting of the Botanical Society of America, Edmonton, AB, Canada. (Klymiuk, A.A., Stockey, R.A. and Rothwell, G.W.) <http://2015.botanyconference.org/engine/search/index.php?func=detail&aid=188>

2015d Manoxylic seed ferns from Exposure A at Oxroad Bay (Tournasian) East Lothian, Scotland. Abstract 366. 107th meeting of the Botanical Society of America, Edmonton, AB, Canada. (Dunn, M. and Rothwell, G.W.) (<http://2015.botanyconference.org/engine/search/index.php?func=detail&aid=366>

2015e Mesozoic and Cenozoic plant evolution and biotic change: Introduction to a symposium in honor of Ruth Stockey. Abstract 386. 107th meeting of the Botanical Society of America, Edmonton, AB, Canada. <http://2015.botanyconference.org/engine/search/index.php?func=detail&aid=386>

2015f Phylogenetic relationships in the Polytrichaceae (Bryophyta): a morphology-based approach. Abstract 589. 107th meeting of the Botanical Society of America, Edmonton, AB, Canada. (Bippus, A.C., Stockey, R.A., Rothwell, G.W. and Tomescu, A.M.F.) <http://2015.botanyconference.org/engine/search/index.php?func=detail&aid=589>

2015g Resolving the overall pattern of marattialean fern phylogeny. Abstract 409. 107th meeting of the Botanical Society of America, Edmonton, AB, Canada. (Rothwell, G.W., Millay, M.A. and Stockey, R.A.) <http://2015.botanyconference.org/engine/search/index.php?func=detail&aid=409>

2015h Stricter taxon selection criteria and implied character weighting increases phylogenetic resolution of living and fossil Pinaceae. Abstract 729. 107th meeting of the Botanical Society of America, Edmonton, AB, Canada. (Gernandt, D.S., Holman, G., Campbell, C.S., Stockey, R.A. and Rothwell, G.W.) <http://2015.botanyconference.org/engine/search/index.php?func=detail&aid=729>

2014a *Osmundacaulis* in the Early Cretaceous of Haida Gwaii. Abstracts of the10th British Columbia Paleontological Symposium. May 9-12, 2014. Victoria, BC, Canada. (Smith, M.A. Rothwell, G.W. and Stockey, R.A.)

2014b Origin and Evolution of Equisetophytes. Midcontinent Paleobotanical Collquium. Pennsylvanian State University, College Station, PA.

2014c Bryosymbiotic fungi from the Early Cretaceous (Valanginian) of Vancouver Island, British Columbia, Canada. Abstract 751, 106th meeting of the Botanical Society of America, Boise, ID. (Shelton, G.W.K.; Stockey, R.A., Rothwell G.W and Tomescu, A.M.F.) <http://www.2014.botanyconference.org/engine/search/index.php?func=detail&aid=751>

2014d Evolution of modern Marattiales; superficially *Christensenia*-like synangia in the Early Cretaceous. Abstract 283, 106th meeting of the Botanical Society of America, Boise, ID, July 26-30, 2014., (Rothwell, G.W. and Stockey, R.A.) <http://www.2014.botanyconference.org/engine/search/index.php?func=detail&aid=283>

2014e Evolution of Osmundaceae: *Osmundacaulis* in the Northern Hemisphere. Abstract 475, 106th meeting of the Botanical Society of America, Boise, ID., (Smith, MaKenzie; Rothwell, G.W. and Stockey, R.A.) <http://www.2014.botanyconference.org/engine/search/index.php?func=detail&aid=475>

2013a Origin and Evolution of Plant Vegetative Organs. Midcontinent Paleobotanical Colloquium. Chicago Botanic Garden. Glenco, Illinois.

2013b [A polytrichaceous moss with gemmae from the Early Cretaceous of Vancouver Island (Canada)](http://www.botanyconference.org/engine/search/index.php?func=detail&aid=800). Abstract 800, 105th meeting of the Botanical Society of America, New Orleans, Lousiana. ([Bippus, A.](http://www.botanyconference.org/engine/search/index.php?func=contactbyemail&id=1683), [Shelton, G.W.K.](http://www.botanyconference.org/engine/search/index.php?func=contactbyemail&id=1684), [Stockey, R.A.](http://www.botanyconference.org/engine/search/index.php?func=contactbyemail&id=693), Rothwell, G.W. and [Tomescu, A.M.F.](http://www.botanyconference.org/engine/search/index.php?func=contactbyemail&id=1020)) <http://2013.botanyconference.org/engine/search/index.php?func=detail&aid=800>

 2013c [A second tricostate moss from the Early Cretaceous of Vancouver Island, British Columbia](http://www.botanyconference.org/engine/search/index.php?func=detail&aid=916). Abstract 916, 105th meeting of the Botanical Society of America, New Orleans, Lousiana. ([Shelton, G.W.K.](http://www.botanyconference.org/engine/search/index.php?func=contactbyemail&id=1684); Rothwell, G.W., Stockey, R.A. and [Tomescu, A.M.F.](http://www.botanyconference.org/engine/search/index.php?func=contactbyemail&id=1020)) <http://2013.botanyconference.org/engine/search/index.php?func=detail&aid=916>

2013d July. [Calibrating the ages of conifer clades](http://www.botanyconference.org/engine/search/index.php?func=detail&aid=364). Abstract 364, 105th meeting of the Botanical Society of America, New Orleans, Lousiana, July 27 – 31, 1013. (Escapa, I., Rothwell, G.W. and Cuneo, N.) <http://www.botanyconference.org/engine/search/index.php?func=detail&aid=364>

2013e [New evidence for the radiation of basal Cupressaceae](http://www.botanyconference.org/engine/search/index.php?func=detail&aid=449). Abstract 449,105th meeting of the Botanical Society of America, New Orleans, Lousiana, July 27 – 31, 1013. ([Atkinson, R.A.](http://www.botanyconference.org/engine/search/index.php?func=contactbyemail&id=920), [Stockey, R](http://www.botanyconference.org/engine/search/index.php?func=contactbyemail&id=693).A., [Rothwell, G](http://www.botanyconference.org/engine/search/index.php?func=contactbyemail&id=690).W.) <http://www.botanyconference.org/engine/search/index.php?func=detail&aid=449>

2013f [The gymnosperm AToL: Results of analysis of morphological characters](http://www.botanyconference.org/engine/search/index.php?func=detail&aid=351). Abstract 351, 105th meeting of the Botanical Society of America, New Orleans, Lousiana, July 27 – 31, 1013. ([Rothwell, G.W.,](http://www.botanyconference.org/engine/search/index.php?func=contactbyemail&id=690) [Stevenson, D.W.,](http://www.botanyconference.org/engine/search/index.php?func=contactbyemail&id=27) [Escapa, I.](http://www.botanyconference.org/engine/search/index.php?func=contactbyemail&id=691), [Mapes, G.](http://www.botanyconference.org/engine/search/index.php?func=contactbyemail&id=692), [Stockey, R.A.](http://www.botanyconference.org/engine/search/index.php?func=contactbyemail&id=693), [Ickert-Bond, S.,](http://www.botanyconference.org/engine/search/index.php?func=contactbyemail&id=24) [Campbell, C.,](http://www.botanyconference.org/engine/search/index.php?func=contactbyemail&id=662) [Gernandt, D.](http://www.botanyconference.org/engine/search/index.php?func=contactbyemail&id=694), [Holman, G.,](http://www.botanyconference.org/engine/search/index.php?func=contactbyemail&id=695) [Kelch, D](http://www.botanyconference.org/engine/search/index.php?func=contactbyemail&id=696)., [Little, D](http://www.botanyconference.org/engine/search/index.php?func=contactbyemail&id=697). and [Mathews, S](http://www.botanyconference.org/engine/search/index.php?func=contactbyemail&id=698).) <http://www.botanyconference.org/engine/search/index.php?func=detail&aid=351>

2013g [Anatomically preserved Nilssoniopteris (Bennettitales) from the Lower Cretaceous of Vancouver Island, British Columbia, Canada](http://www.botanyconference.org/engine/search/index.php?func=detail&aid=1291). Abstract 1291, 105th meeting of the Botanical Society of America, New Orleans, Lousiana, July 27 – 31, 1013. ([Rae, M.](http://www.botanyconference.org/engine/search/index.php?func=contactbyemail&id=2043)M., [Rothwell, G.W. and](http://www.botanyconference.org/engine/search/index.php?func=contactbyemail&id=690) [Stockey, R.A](http://www.botanyconference.org/engine/search/index.php?func=contactbyemail&id=693).) <http://www.2013.botanyconference.org/engine/search/index.php?func=detail&aid=1291>

2013h Plant Ontology, a controlled and structured plant vocabulary for all botanical disciplines Abstract 800, 105th meeting of the Botanical Society of America, New Orleans, Lousiana, July 27 – 31, 1013. (Atkinson, B., L. Cooper, L. Moore, J. Preece, J. Elser. N. Lingutla, S. Todorovic, R. Walls, R. A. Stockey, G. W. Rothwell, B. Smith, M. A. Gandolfo, D. Stevenson, and P. Jaiswal) <http://2013.botanyconference.org/engine/search/index.php?func=detail&aid=1337>

2012a A new interpretation of the Jurassic seed cone *Pararaucaria patagonica*. Abstract 881. Botany 2012, 104th meeting of the Botanical Society of America, Columbus, Ohio, July 7 – 11, 1012. (Rothwell, G.W., Escapa I, Stockey, R.A. and Cuneo, N.) <http://2012.botanyconference.org/engine/search/index.php?func=detail&aid=881>

2012b Descent with Modification; uniting paleontology and molecular genetics to integrate pattern and process in plant evolution. Abstract 1115. Botany 2012, 104th meeting of the Botanical Society of America, Columbus, Ohio, July 7 – 11, 1012. <http://2012.botanyconference.org/engine/search/index.php?func=detail&aid=1115>

2012c Permineralized vegetative shoots and seed cones from the Lower Cretaceous of Vancouver Island, British Columbnia: A new genus of *Cunninghamia*-like conifers (Cupressaceae). Abstract 164. Botany 2012, 104th meeting of the Botanical Society of America, Columbus, Ohio, July 7 – 11, 1012. (Atkinson, B, Rothwell, G.W. and R.A. Stockey) <http://2012.botanyconference.org/engine/search/index.php?func=detail&aid=164>

2012d Rescuing a fossil morphology with exogenous auxin treatments of *Isoetes*. Abstract 984. Botany 2012, 104th meeting of the Botanical Society of America, Columbus, Ohio, July 7 – 11, 1012. (Williams, T., Rothwell, G.W. and Wyatt, S.) <http://2012.botanyconference.org/engine/search/index.php?func=detail&aid=984>

2012e Two new Jurassic species of *Pararaucaria* (Cheirolepidiaceae from Patagonia (Argentina) and Oregon (USA): dominance and extension of the Cheirolepidiaceae-Araucariaceae forests. Abstract 881. Botany 2012, 104th meeting of the Botanical Society of America, Columbus, Ohio, July 7 – 11, 1012. (Stockey, R.A., Escapa, I. and Rothwell, G.W.) <http://2012.botanyconference.org/engine/search/index.php?func=detail&aid=867>

2012f Permineralized vegetative shoots and seed cones from the Lower Cretaceous of Vancouver Island, British Columbia: A new genus of conifers, Cupressaceae s.l. Presentation Abstsracts for MPC-29 Mid-Continent Paleobotanical Colloquium. Yale University, New Haven, Connecticut, May 11-13, 2012, (Atkinson, B.A., Rothwell, G.W. and Stockey, R.A.)

 <http://peabody.yale.edu/sites/default/files/documents/paleobotany/MPC-29%20Program%20and%20Abstracts.pdf>

2012g Anatomically preserved cycadophyte foliage from the Lower Cretaceous of Vancouver Island. Presentation Abstsracts for MPC-29 Mid-Continent Paleobotanical Colloquium. Yale University, New Haven, Connecticut, May 11-13, 2012. (Ray, M.M. and Rothwell, G.W.) <http://peabody.yale.edu/sites/default/files/documents/paleobotany/MPC-29%20Program%20and%20Abstracts.pdf>

2012h Reproductive anatomy of the conifer family Cheirolepidiaceae. Abstracts of IPC/IOPC 2012. Tokyo, Japan, August 17-30, 2012. Abstract SS23-002 (169). (Stockey, R.A., Escapa, I.H. and Rothwell, G.W.) <http://www.psj3.org/ipc-iopc2012/Download.html>

2012i The role of seed cones in resolving the overall pattern of conifer phylogeny. Abstracts of IPC/IOPC 2012. Tokyo, Japan, August 17-30, 2012. Abstract SS23-011 (437). (Stockey, R.A., Escapa, I.H. and Rothwell, G.W.) <http://www.psj3.org/ipc-iopc2012/Download.html>

2012j Extending the C/S technique for differentiating paleoenvironments using a statistical approach. Symposikum T127. Terrestrial proxies of paleoclimate and paleoenvironment in deep time (Posters). Paper 248-1. 2012 Geological Society of America Annual Meeting in Charlotte, North Carolina, November 4-7, 2012. (Nadon, G.C., Tomescu, A.M.F., Prat, L.M. and Rothwell, G.W.) <https://gsa.confex.com/gsa/2012AM/finalprogram/abstract_209456.htm>

2011a A new species of Cobbania (Araceae) from the Cretaceous (Upper Maastrichtian of South Dakota. Botany 2011, 103rd meeting of the Botanical Society of America. St. Louis, Missouri, July 9-13, 2011. (Stockey, R.A., Rothwell, G.W. and Johnson, K.) <http://2011.botanyconference.org/engine/search/index.php?func=detail&aid=484>

2011b A taxodioid (Cupressaceae) seed cone from the Upper Cretaceous of British Columbia, Canada. Botany 2011, 103rd meeting of the Botanical Society of America. St. Louis, Missouri, July 9-13, 2011. (Klymiuk, A, Stockey, R.A. and G.W. Rothwell) <http://2011.botanyconference.org/engine/search/index.php?func=detail&aid=530>

2011c Evidence for the filicalean fern genus *Senftenbergia* in Pennsylvanian sediments of western North America. Botany 2011, 103rd meeting of the Botanical Society of America. St. Louis, Missouri, July 9-13, 2011. (Hillier, K. and Rothwell G.W.) <http://2011.botanyconference.org/engine/search/index.php?func=detail&aid=281>

2011d Innovations in organismal botany – a tribute to the pioneering studies of Donald A. Eggert. Botany 2011, 103rd meeting of the Botanical Society of America. St. Louis, Missouri, July 9-13, 2011. (Taylor, T.N. and G.W. Rothwell) <http://2011.botanyconference.org/engine/search/index.php?func=detail&aid=663>

2011e Rooting the Paleozoic’s largest trees; morphology, development, and homologies of Stigmaria. Botany 2011, 103rd meeting of the Botanical Society of America. St. Louis, Missouri, July 9-13, 2011. <http://2011.botanyconference.org/engine/search/index.php?func=detail&aid=323>

2011f The role of auxin I isoetalean body plans. Botany 2011, 103rd meeting of the Botanical Society of America. St. Louis, Missouri, July 9-13, 2011. (Williams T.R., Rothwell, G.W., Wyatt, S, and Sanders, H.)

<http://2011.botanyconference.org/engine/search/index.php?func=detail&aid=421>

2011g Reconstructing a Pennsylvanian age species of the filicalean fern *Senftenbergia*. Abstracts of the 28th Midcontinent Paleobotanical Colloquium, North Carolina State University, Raleigh, North Carolina, May 20-22, 2011. (Hillier, K. and Rothwell, G.W.) <http://www4.ncsu.edu/~xylem/mpc.ab.text.htmL>

2011h Diversity in the plant fossil record I: Historical survey and development of organismal concepts. Program with abstracts of the Canadian Society of Ecology and Evolution/La société canadienne d’écology et d’evolution. 6th Annual Meeting, Banff, Alberta, Canada, May 12-15, 2011. (Rothwell, G.W. and Stockey, R.A.) <http://www.ecoevo.ca/banff2011/en/CSEE%202011%20Programme%20-%20online%20version.pdf>

2011i Diversity in the plant fossil record II: Floras of exceptional preservation. Program with abstracts of the Canadian Society of Ecology and Evolution/La société canadienne d’écology et d’evolution. 6th Annual Meeting, Banff, Alberta, Canada, May 12-15, 2011. (Stockey, R.A. and Rothwell, G.W) <http://www.ecoevo.ca/banff2011/en/CSEE%202011%20Programme%20-%20online%20version.pdf>

2011j Molecules and fossils, developing concordance of results for the systematics and phylogeny of Conifers. Introduction and overview of conifer phylogeny. Abstract Book (page 194) of the International Botanical Congress, Melbourne, Australia, July 21-August 2, 1011, page . (Rothwell, G.W., Campbell, C, Escapa, I, Gernandt, D. Holman, G. Kelch, D., Little, D. Mapes, G. Mathews, S and Stockey, R.)

 <http://www.ibc2011.com/downloads/IBC2011_Abstract_Book.pdf>

2011k Molecules and fossils, developing concordance of results for the systematics and phylogeny of Conifers. Simultaneous analysis of molecules and morphology and the relationship of fossil ovulate cones to living generaz of Pinaceae. Abstract Book (page 195) of the International Botanical Congress, Melbourne, Australia, July 21-August 2, 1011, page . (Gernandt, D., Holman, G., Parks, M., Campbell, C., Crown, R., Liston, A., Rothwell, G. and Stockey, R.)

 <http://www.ibc2011.com/downloads/IBC2011_Abstract_Book.pdf> <https://gsa.confex.com/gsa/2012AM/finalprogram/abstract_209456.htm>

2010a Coníferas permineralizadasen la cuenca de Cañadón Asfalto, Chubut: impacto evolutivo y taxonómico. Abstracts of X Congreso Argentino de Paleontología y Bioestratigrafía y el VII Congreso Latinoamericano de Paleontología (La Plata, Argentina, 20 al 24 de septiembre de 2010; Escapa, I.H. and Rothwell, G.W.)

2010b [A focus on gymnosperm clades: Establishing the context to understand seed plant phylogeny](http://2010.botanyconference.org/engine/search/index.php?func=detail&aid=705). ). Abstract 705. Botany 2010, 102nd meeting of the Botanical Society of America, Providence, Rhode Island, July 30-Aug 4, 2010. <http://2010.botanyconference.org/engine/search/index.php?func=detail&aid=705> ([Mathews, Sarah](http://2010.botanyconference.org/engine/search/index.php?func=contactbyemail&id=548); [Campbell, Christopher S.](http://2010.botanyconference.org/engine/search/index.php?func=contactbyemail&id=1624); [Cronn, RC](http://2010.botanyconference.org/engine/search/index.php?func=contactbyemail&id=845); [Gernandt, David A.](http://2010.botanyconference.org/engine/search/index.php?func=contactbyemail&id=15630); [Holman, Garth](http://2010.botanyconference.org/engine/search/index.php?func=contactbyemail&id=14471); [Ickert-Bond, Steffi](http://2010.botanyconference.org/engine/search/index.php?func=contactbyemail&id=10924); [Kelch, Dean](http://2010.botanyconference.org/engine/search/index.php?func=contactbyemail&id=6555); [Li, Jianhua](http://2010.botanyconference.org/engine/search/index.php?func=contactbyemail&id=341); [Liston, Aaron](http://2010.botanyconference.org/engine/search/index.php?func=contactbyemail&id=846); [Little, Damon](http://2010.botanyconference.org/engine/search/index.php?func=contactbyemail&id=5691); [Mapes, Gene](http://2010.botanyconference.org/engine/search/index.php?func=contactbyemail&id=1202); [Mei, Wenbin](http://2010.botanyconference.org/engine/search/index.php?func=contactbyemail&id=15297); [Morris, Julie A.](http://2010.botanyconference.org/engine/search/index.php?func=contactbyemail&id=12954); [Nagalingum, Nathalie](http://2010.botanyconference.org/engine/search/index.php?func=contactbyemail&id=6505); [Parks, Matthew](http://2010.botanyconference.org/engine/search/index.php?func=contactbyemail&id=13245); [Rai, Hardeep](http://2010.botanyconference.org/engine/search/index.php?func=contactbyemail&id=13499); [Raubeson, Linda A.](http://2010.botanyconference.org/engine/search/index.php?func=contactbyemail&id=719); [Rothwell, Gar W.](http://2010.botanyconference.org/engine/search/index.php?func=contactbyemail&id=136); [Ryberg, Patricia E.](http://2010.botanyconference.org/engine/search/index.php?func=contactbyemail&id=4919); [Schwarzbach, Andrea E.](http://2010.botanyconference.org/engine/search/index.php?func=contactbyemail&id=12953); [Stockey, Ruth A.](http://2010.botanyconference.org/engine/search/index.php?func=contactbyemail&id=314))

2010c [Early evolution of Pinaceae: an anatomically preserved *Pinus* seed cone from the Early Cretaceous of Yorkshire](http://2010.botanyconference.org/engine/search/index.php?func=detail&aid=98). Abstract 98. Botany 2010, 102nd meeting of the Botanical Society of America, Providence, Rhode Island, July 30-Aug 4, 2010. <http://2010.botanyconference.org/engine/search/index.php?func=detail&aid=9> ([Ryberg, Patricia E.](http://2010.botanyconference.org/engine/search/index.php?func=contactbyemail&id=4919); [Stockey, Ruth A.](http://2010.botanyconference.org/engine/search/index.php?func=contactbyemail&id=314); [Hilton, Jason](http://2010.botanyconference.org/engine/search/index.php?func=contactbyemail&id=486); [Riding, James B.](http://2010.botanyconference.org/engine/search/index.php?func=contactbyemail&id=15115); [Rothwell, Gar W.](http://2010.botanyconference.org/engine/search/index.php?func=contactbyemail&id=136))

2010d Rooting Pinaceae. Abstract 539. Botany 2010, 102nd meeting of the Botanical Society of America, Providence, Rhode Island, July 30-Aug 4, 2010. <http://2010.botanyconference.org/engine/search/index.php?func=detail&aid=539> ([Holman, Garth](http://2010.botanyconference.org/engine/search/index.php?func=contactbyemail&id=14471); [Cronn, RC](http://2010.botanyconference.org/engine/search/index.php?func=contactbyemail&id=845); [Gernandt, David S.](http://2010.botanyconference.org/engine/search/index.php?func=contactbyemail&id=13515); [Graham, Sean W.](http://2010.botanyconference.org/engine/search/index.php?func=contactbyemail&id=125); [Kelch, Dean](http://2010.botanyconference.org/engine/search/index.php?func=contactbyemail&id=6555); [Liston, Aaron](http://2010.botanyconference.org/engine/search/index.php?func=contactbyemail&id=846); [Mathews, Sarah](http://2010.botanyconference.org/engine/search/index.php?func=contactbyemail&id=548); [Parks, Matthew](http://2010.botanyconference.org/engine/search/index.php?func=contactbyemail&id=13245); [Rai, Hardeep](http://2010.botanyconference.org/engine/search/index.php?func=contactbyemail&id=13499); [Raubeson, Linda A.](http://2010.botanyconference.org/engine/search/index.php?func=contactbyemail&id=719); [Rothwell, Gar W.](http://2010.botanyconference.org/engine/search/index.php?func=contactbyemail&id=136); [Stevenson, Dennis Wm.](http://2010.botanyconference.org/engine/search/index.php?func=contactbyemail&id=1050); [Stockey, Ruth A.](http://2010.botanyconference.org/engine/search/index.php?func=contactbyemail&id=1932); [Campbell, Christopher S.](http://2010.botanyconference.org/engine/search/index.php?func=contactbyemail&id=1624))

2010e [The role of morphology in contemporary analyses of seed plant phylogeny](http://2010.botanyconference.org/engine/search/index.php?func=detail&aid=505). Abstract [505](http://2010.botanyconference.org/engine/search/index.php?func=detail&aid=505). Botany 2010, 102nd meeting of the Botanical Society of America, Providence, Rhode Island, July 30-Aug 4, 2010. <http://2010.botanyconference.org/engine/search/index.php?func=detail&aid=505> ([Rothwell, Gar W.](http://2010.botanyconference.org/engine/search/index.php?func=contactbyemail&id=136); [Campbell, Christopher S.](http://2010.botanyconference.org/engine/search/index.php?func=contactbyemail&id=1624); [Gernandt, David A.](http://2010.botanyconference.org/engine/search/index.php?func=contactbyemail&id=15630); [Hermsen, Elizabeth J.](http://2010.botanyconference.org/engine/search/index.php?func=contactbyemail&id=2800); [Holman, Garth](http://2010.botanyconference.org/engine/search/index.php?func=contactbyemail&id=14471); [Kelch, Dean](http://2010.botanyconference.org/engine/search/index.php?func=contactbyemail&id=6555); [Ickert-Bond, Steffi](http://2010.botanyconference.org/engine/search/index.php?func=contactbyemail&id=10924); [Little, Damon](http://2010.botanyconference.org/engine/search/index.php?func=contactbyemail&id=5691); [Mapes, Gene](http://2010.botanyconference.org/engine/search/index.php?func=contactbyemail&id=1202); [Mathews, Sarah](http://2010.botanyconference.org/engine/search/index.php?func=contactbyemail&id=548); [Ryberg, Patricia E.](http://2010.botanyconference.org/engine/search/index.php?func=contactbyemail&id=4919); [Stevenson, Dennis Wm.](http://2010.botanyconference.org/engine/search/index.php?func=contactbyemail&id=1050); [Stockey, Ruth A.](http://2010.botanyconference.org/engine/search/index.php?func=contactbyemail&id=314); [Yang, Yong](http://2010.botanyconference.org/engine/search/index.php?func=contactbyemail&id=586))

2009a The evolution of gnetophytes, Lower Cretaceous evidence from an anatomically preserved seed cone. Botany and Mycology 2009, Botanical Society of America. Abstract 65002, Program Book, p. 94. (G.W. Rthwell and R.A. Stockey).

2009b Is *Doylea* a cupulate seed fern, a conifer, or neither? Botany and Mycology 2009, Botanical Society of America. Abstract 65003, Program Book, p. 94. (Stockey, R.A. and G.W. Rothwell).

2009c Anthophytes and seed ferns in the origin of flowering plants; contemporary approaches to the resolution of relationships. Botany and Mycology 2009, Botanical Society of America. Abstract C1002, Program Book, p. 76.

2009d Evidence for phylogenetic relationshipsamong conifers: the first organismal concept for an extinct species of *Pinus*. Botany and Mycology 2009, Botanical Society of America. Abstract 16002, Program Book, p. 53. (Klymiuk, A.A. R.A. Stockey, and G.W. Rothwell).

2009e “Descent with modification”, transformational series, and phylogenetic analyses to infer the evolution of modern conifer families. Papper 220-11, Geological Society of American annual meetings, <http://gsa.confex.com/gsa/2009AM/finalprogram/abstract_165301.htm>, (Rothwell, G.W., G. Mapes, R.A. Stockey, J. Hilton and R. Bateman)

2008a Anatomy of an Upper Cretaceous bennettitalean stem. Abstracts of Botany without Borders, 101st meeting of the Botanical Society of America, University of British Columbia, July 26-30, 2008. <http://2008.botanyconference.org/engine/search/index.php?func=detail&aid=139> (Jud, N.A, G.W. Rothwell and R.A.[)](http://2008.botanyconference.org/engine/search/index.php?func=contactbyemail&id=314)

2008b Early Cretaceous *Equisetum* fossils confirm that the modern evolutionary radiation was well underway 136 million years ago. Abstracts of Botany without Borders, 101st meeting of the Botanical Society of America, University of British Columbia, July 26-30, 2008. <http://2008.botanyconference.org/engine/search/index.php?func=detail&aid=138> (Stanich, N. G.W. Rothwell and R.A.[Stockey)](http://2008.botanyconference.org/engine/search/index.php?func=contactbyemail&id=314)

2008c Rothwell, G.W. Midcontinent Paleobotanical Colloquium retrospective. Abstracts of the 25th Midcontinent Paleobotanical Colloquium., March 14 – 18, 2008. University of South Alabama, Mobile, Alabama. <http://oak.cats.ohiou.edu/~rothwell/MPC/25th\_MPC\_program.pdf>

2008d Utility of pollen characaters in gymnosperm systematics and Assembling the Tree of Life (AToL). Abstracts of Botany without Borders, 101st meeting of the Botanical Society of America, University of British Columbia, July 26-30, 2008. (Ickert-Bond, S., M Kurmann and G.W. Rothwell)

2008e The origin of modern conifer families; evidence from anatomically preserved Jurassic seed cones. Abstracts of Botany without Borders, 101st meeting of the Botanical Society of America, University of British Columbia, July 26-30, 2008. (Mapes, G., G.W. Rothwell, R.A. Stockey and J. Hilton)

2008f Is the anthophyte hypothesis alive and well? New evidence from bennettitalean seeds and cones. Abstracts of Botany without Borders, 101st meeting of the Botanical Society of America, University of British Columbia, July 26-30, 2008. http://2008.botanyconference.org/engine/search/index.php?func=detail&aid=549 (Rothwell, G.W., W.L. Crepet and R.A. Stockey)

2008g Fossils as blank slates and blank checks. Abstracts of Botany without Borders, 101st meeting of the Botanical Society of America, University of British Columbia, July 26-30, 2008. http://2008.botanyconference.org/engine/search/index.php?func=detail&aid=549 (Rothwell, G.W. and K. Nixon) http://2008.botanyconference.org/engine/search/index.php?func=detail&aid=614

2008h Structure and relationships of bennettitalean seeds and cones: Is it time to move beyond the anthophyte hypothesis? Abstract 589, p. 238. Abstract Volume. 12th International Palynological Congress (IPC-XII)/8th International Organisation of Palaeobotany Conference. (IOPC-VIII). Schriften der GeoUnion Alfred-Wegener-Stiftung 2008/2. GeoUnion Alfred-Wegener-Stiftung. Arno-Holzstr. 14, 12165 Berlin, Germany. (Rothwell, G.W., W.L. Crepet and R.A. Stockey)

2007a Evolution of Osmundaceous Ferns; First Fossil Evidence for the Genus Todea. Abstracts of the 24th Midcontinent Paleobotanical Colloquium. <http://www.smu.edu/geology/news/MPC\_abstracts.pdf> (Jud, N.A., G.W. Rothwelland R.A. Stockey)

2007b An Evolutionary Reversion: *Isoetes* becomes *Paurodendron*. Abstracts of the 24th Midcontinent Paleobotanical Colloquium. <http://www.smu.edu/geology/news/MPC\_abstracts.pdf> (Sanders,, H.; G.W. Rothwell and S.Wyatt)

2007c In search of the first flowering plants: permineralized vegatation from the Valanginian/Hauterivian boundary on Vancouver Island, Canada. Plant Biology & Botany 2007, Chicago. Program & Abstracts: CP27004: 215. (Stockey, R.A. and G.W. Rothwell)

2007d Origins of modern conifer families: Jurassic seed cones from Scotland. Plant Biology & Botany 2007, Chicago. Program & Abstracts: CP27003: 215. (Mapes, G., R.A. Stockey, J. Hilton and G.W. Rothwell)

2007e Diversity among Pennsylvanian age walchian conifer plants: a third species of the genus *Emporia.* Plant Biology & Botany 2007, Chicago. Program & Abstracts: CP18007: 214. (Hernandez-Castillo, G.R., R.A. Stockey, R.A. Stockey, G.W. Rothwell, and G. Mapes)

2007f Fossil evidence for the genus *Todea*: implications fro the phylogeny of Osmundaceae. Plant Biology & Botany 2007, Chicago. Program & Abstracts: CP11001: 210. (Jud, N.A., G.W. Rothwell and R.A. Stockey)

2007g Stalking the first flowering plants: permineralized vegetation from the Valanginian/Hauterivian boundary on Vancouver Island, Canada. In Search of the Earliest Flowers: An International Symposium, Stockholm, Sweden. p. 22. (Stockey, R.A. and G.W. Rothwell)

 2007h Lower Cretaceous seed plants from Apple Bay, northern Vancouver Island: the earliest known flowering plants? Or the last of the seed ferns? 7th BC Paleontological Symposium, Courtenay. (Stockey, R.A. and G.W. Rothwell)

2007i [Molecules to Morphology: Introduction](http://2007.botanyconference.org/engine/search/index.php?func=detail&aid=1808). Molecules to Morphology: Developing an Understanding of Plant Evolution Through Time. Plant Biology & Botany 2007, Chicago. Program & Abstracts: SY20001: 175. ([Rothwell, G.W.](http://2007.botanyconference.org/engine/search/index.php?func=contactbyemail&id=136) and S. [Wyatt](http://2007.botanyconference.org/engine/search/index.php?func=contactbyemail&id=2047))

2007j [Molecules to morphology: summary and conclusions](http://2007.botanyconference.org/engine/search/index.php?func=detail&aid=1680). Molecules to Morphology: Developing an Understanding of Plant Evolution Through Time. Plant Biology & Botany 2007, Chicago. Program & Abstracts: SY20008: 177. ([Wyatt, S](http://2007.botanyconference.org/engine/search/index.php?func=contactbyemail&id=2047). and G.W.[Rothwell)](http://2007.botanyconference.org/engine/search/index.php?func=contactbyemail&id=136)

2007k [On vascular development in the leaves of *Isoetes*](http://2007.botanyconference.org/engine/search/index.php?func=detail&aid=2478). Plant Biology & Botany 2007, Chicago. Program & Abstracts. ([Sanders, H](http://2007.botanyconference.org/engine/search/index.php?func=contactbyemail&id=1123), E.E. [Karrfalt and G.W.](http://2007.botanyconference.org/engine/search/index.php?func=contactbyemail&id=11978) [Rothwel)](http://2007.botanyconference.org/engine/search/index.php?func=contactbyemail&id=136)

2007l [Terrestrial stable carbon isotope signatures in Ordovician-Silurian (455-420 Ma) compression biotas of the Appalachians](http://2007.botanyconference.org/engine/search/index.php?func=detail&aid=1687). Plant Biology & Botany 2007, Chicago. Program & Abstracts: CP18002: 213. ([Tomescu, A.M.F](http://2007.botanyconference.org/engine/search/index.php?func=contactbyemail&id=5792)., [Pratt, L.M](http://2007.botanyconference.org/engine/search/index.php?func=contactbyemail&id=6085)., and G.W. [Rothwell)](http://2007.botanyconference.org/engine/search/index.php?func=contactbyemail&id=136)

2007m [Upside down aunxin suggests the evolutionary origin of isoetalean rhizomorphs](http://2007.botanyconference.org/engine/search/index.php?func=detail&aid=1226). Plant Biology & Botany 2007, Chicago. Program & Abstracts: CP11007: 212.
[Sanders, H., G.W.](http://2007.botanyconference.org/engine/search/index.php?func=contactbyemail&id=1123) [Rothwell and S.](http://2007.botanyconference.org/engine/search/index.php?func=contactbyemail&id=136)[Wyatt](http://2007.botanyconference.org/engine/search/index.php?func=contactbyemail&id=2047))

2007n The fossil record of auxin regulation and the parallel evolution of bipolar growth. The Linnean Society of London,Palaeobotany Specialist Group Autumn Meeting. Newsletter 24, p.7. (H. Sanders, G.W. Rothwell and S. Wyatt)

2006a Fronds of the Lower Carboniferous seed fern *Buteoxylon gordonianum;* a model for spermatophyte leaf evolution. Abstracts of the 23rd Midcontinent Paleobotanical Colloquium, <http://oak.cats.ohiou.edu/%7Erothwell/MPC/MPC23abstract.htm> (Sanders, H. and G.W. Rothwell)

2006b The last of the pre-angiospermous vegetation: a Lower Cretaceous flora from Apple Bay, Vancouver Island. Presentation No. 45. In: Advances in paleobotany -- recognizing the contributions of David L. Dilcher and Jack A. Wolfe on the occasion of their 70th Birthday, Florida Museum of Natural History, University of Florida <http://www.flmnh.ufl.edu/paleobotany/meeting/abstract.htm#Stockey>**,** (Stockey, R.A. and G.W. Rothwell)

2006c Paleontology provides a context for the developmental mechanisms of evolution. Abstracts of Botany 2006, the Botanical Society of America 100th Annual Meeting, Chico State University, Chico, CA. Abstract No. 39, Page 21. (Sanders, H., G.W. Rothwell and S. Wyatt)

2006d Fossil record of growth regulation and the evolution of modern plant structure. Abstracts of Botany 2006, the Botanical Society of America 100th Annual Meeting, Chico State University, Chico, CA. Abstract No. 121, Page 59. (Rothwell, G.W., H Sanders, S. Wyatt and S. Lev-Yadun)

2006e A whole plant reconstruction of the Upper Pennsylvanian conifer *Emporia lockardii* (Emporiaceae). Abstracts of Botany 2006, the Botanical Society of America 100th Annual Meeting, Chico State University, Chico, CA. Abstract No. 359, Page 165. (Hernandez-Castillo, G.R., R.A. Stockey, G.W. Rothwell and G. Mapes)

2006f Reconstructing the frond of *Buteoxylon gordianum* to understand the early evolution of seed plant fronds. Abstracts of Botany 2006, the Botanical Society of America 100th Annual Meeting, Chico State University, Chico, CA. Abstract No. 371, Page 170. (Sanders, H. and G.W. Rothwell)

2006g Early Paleozoic terrestrial biotas of the Appalachians: insights from geochemical and isotopic studies. Abstracts of Botany 2006, the Botanical Society of America 100th Annual Meeting, Chico State University, Chico, CA. Abstract No. 380, Page 174. (Tomescu, A.M.F. and G.W. Rothwell)

2006h Early land plants: the fossil record as independent test for hypotheses of morphological evolution. Abstracts of Botany 2006, the Botanical Society of America 100th Annual Meeting, Chico State University, Chico, CA. Abstract No. 381, Page 175. (Tomescu, A.M.F. and G.W. Rothwell)

2006i A new approach to integrative plant biology: PBIO 442/542 Experimental Anatomy of Plant Development. Abstracts of Botany 2006, the Botanical Society of America 100th Annual Meeting, Chico State University, Chico, CA. Abstract No. 680, Page 308. (Wyatt, S. and G.W. Rothwell)

2006j Upper Paleozoic conifer whole plant reconstructions, a new Emporiaceae conifer from the Hamilton Quarry, Kansas, USA. Abstracts of the 7th European Palaeobotany-Palynology Conference, Prague, Czech Republic. Page ?. (Hernandez-Castillo, G.R., R.A. Stockey, G.W. Rothwell and G. Mapes)

2006k Morphological evolution in early land plants: modeling, phylogeny and the fossil record. Abstracts of the 7th European Palaeobotany-Palynology Conference, Prague, Czech Republic. Page ?. (Tomescu, A.M.F., G.W. Rothwell and L.M. Pratt)

2006l The frond of *Buteoxylon gordonianum* provides a model for studies of leaf evolution. Abstracts of the 7th European Palaeobotany-Palynology Conference, Prague, Czech Republic. Page ?. (Sanders, H.., G.W. Rothwell and S. Wyatt)

2006m Diagenetic model for early carbonate cementation of nearshore marine sands. Abstracts of the 17th International Sedimentological Congress, Fukuoka, Japan, p. ? (Gierlowski-Kordesch, G.W. Rothwell, R.A. Stockey and D.R. Grocke)

2005a Can we use the fossil record to test hypotheses of the evolution of developmental pathways? Abstracts of the 22nd Mid-Continent Paleobotanical Colloquium. p. 10. Georgia College and State University, Milledgeville, GA. (Sanders, H., G.W. Rothwell and S.E. Wyatt)

2005b Systematics of the most ancient conifers. Abstracts of the XVII International Botanical Congress. Vienna, Austria, Europe. Abstract No. 4.9.4, p. 68. (Hernandez-Castillo, G.R., R.S. Stockey, G.W. Rothwell and G. Mapes)

2005c Do we need more characters or more taxa to resolve the overall pattern of plant phylogeny. Abstracts of the XVII International Botanical Congress. Vienna, Austria, Europe. Abstract No. 10.5.6, p. 164.

2005d Applying mutant analysis to the interpretation of the fossil record: A new perspective on leaf evolution. Abstracts of the XVII International Botanical Congress. Vienna, Austria, Europe. Abstract No. P0430, p. 308. (Sanders, H.L., G.W. Rothwell and S. Wyatt. 2005)

2005e Fossil evidence for the evolution of polar auxin wood regulation. Abstracts of Botany 2005, the Botanical Society of America 100th Annual Meeting, Austin, TX. Abstract No. 117, p. 38. (Rothwell, G.W. and S. Lev-Yadun)

2005f Developmental genetics, the fossil record, and the evolution of plant form. Abstracts of Botany 2005, the Botanical Society of America 100th Annual Meeting, Austin, TX. Abstract No. 119, p. 39. (Sanders, H., G.W. Rothwell and S. Wyatt)

2005g Reiteration – the fern perspective. Abstracts of Botany 2005, the Botanical Society of America 100th Annual Meeting, Austin, TX. Abstract No. 120, p. 39. (Tomescu, A.M.F. and G.W. Rothwell)

2005h Sporangial dehiscence and spore morphology of an enigmatic Mississippian plant. Abstracts of Botany 2005, the Botanical Society of America 100th Annual Meeting, Austin, TX. Abstract No. 255, p. 38-81-82. (Frankel, D. and G.W. Rothwell)

2005i The frond architecture of the Lower Carboniferous seed fern *Buteoxylon gordonianum*. Abstracts of Botany 2005, the Botanical Society of America 100th Annual Meeting, Austin, TX. Abstract No. 268, p. 85-86. (Sanders, H. and G.W. Rothwell)

2005j Bacterial microfossils within a macrophytic cycanobacterial colony from the Passage Creek biota (Early Silurian, Virginia, USA). Abstracts of Botany 2005, the Botanical Society of America 100th Annual Meeting, Austin, TX. Abstract No. 281, p. 89-90. (Tomescu, A.M.F. and G.W. Rothwell)

2004a Diversity of Cretaceous conifers: A new species with pollen cones that bear adaxial pollen sacs and pollen with features of the taxodiaceous conifers. Geological Society of America Annual Meeting, Denver, CO , p. 342. (Sanders, H, G.W. Rothwell, and R.A. Stockey).

2004b A new approach to plant anatomy: PBIO 442/542 Experimental Anatomy of Plant Development***.*** American Society of Plant Biologists. Lake Buena Vista, FL Abs # 930. (Wyatt, S.E. and G.W. Rothwell).

2004c A century of seed ferns: a symposium to celebrate paradigm shifts in the understanding of seed plant evolution. Abstracts of Botany 2004, the Botanical Society of America 99th Annual Meeting, Snowbird, UT Abstract No. 79, p. 20. (Dunn, M.T. and G.W. Rothwell)

2004d Pollen cones from the Hamilton Quarry, Kansas. Abstracts of Botany 2004, the Botanical Society of America 99th Annual Meeting, Snowbird, UT Abstract No. 328, p. 85. (Harnandez-Castillo, G., R.A. Stockey, G.W. Rothwell, and G. Mapes)

2004e Mesarch solenostelic ferns from the early Cretaceous Apple Bay locality, British Columbia, Canada. Abstracts of Botany 2004, the Botanical Society of America 99th Annual Meeting, Snowbird, UT Abstract No. 329, p. 85. (Harnandez-Castillo, G., R.A. Stockey, and G.W. Rothwell)

2004f A dryopterid fern with *Onoclea*-type stipe anatomy from the Eocene of North America. Abstracts of Botany 2004, the Botanical Society of America 99th Annual Meeting, Snowbird, UT Abstract No. 328, p. 85. (Karafit, S.J., GW. Rothwell, and R.A. Stockey)

2004g Anatomically preserved exarch solenostelic ferns from the Cretaceous Apple Bay locality, Vancouver Island. Abstracts of Botany 2004, the Botanical Society of America 99th Annual Meeting, Snowbird, UT Abstract No. 336, p. 87. (Little, S.A., R.A. Stockey, and G. W. Rothwell)

2004h Vegetative gleicheniaceous remains from the Eocene of North America. Abstracts of Botany 2004, the Botanical Society of America 99th Annual Meeting, Snowbird, UT Abstract No. 3339, p. 87. (Mindell, R., R.A. Stockey, G.W. Rothwell, and G. Beard)

2004i Probable pteridaceous fern leaves with attached sori from the Early Cretaceous of Apple Bay, Vancouver Island. Abstracts of Botany 2004, the Botanical Society of America 99th Annual Meeting, Snowbird, UT Abstract No. 343, p. 88. (Rothwell, GW. and R.A. Stockey)

2004j Diversity of Cretaceous conifers: a species with pollen cones that bear adaxial pollen sacs. Abstracts of Botany 2004, the Botanical Society of America 99th Annual Meeting, Snowbird, UT Abstract No. 344, p. 89. (Sanders, H., G.W. Rothwell, and R.A. Stockey)

2004k A blechnoid fern from the Middle Eocene Princeton chert: rhizomes, rachides and roots. Abstracts of Botany 2004, the Botanical Society of America 99th Annual Meeting, Snowbird, UT Abstract No. 347, p. 90. (Smith, S.Y., R.A. Stockey, H. Nishida, and G.W. Rothwell)

2004l Dipteridaceous ferns from the early Cretaceous Apple Bay flora of Vancouver Island. Abstracts of Botany 2004, the Botanical Society of America 99th Annual Meeting, Snowbird, UT Abstract No. 348, p. 90. (Stockey, R.A., G.W. Rothwell, and S.A. Little)

2004m Cyanobacterial fossils of the Early Silurian Passage Creek biota (Virginia). Abstracts of Botany 2004, the Botanical Society of America 99th Annual Meeting, Snowbird, UT Abstract No. 353, p. 91. Tomescu, A.M.F., G.W. Rothwell, and R. Honegger)

2004n Probing the systematic affinities of early terrestrial organisms in the Passage Creek biota (Lower Silurian, Virginia). Abstracts of Botany 2004, the Botanical Society of America 99th Annual Meeting, Snowbird, UT Abstract No. 354, p. 91. (Tomescu, A.M.F. and G.W. Rothwell)

2004o Reconstructing a stem-group filicalean fern with reiterative indeterminate growth of the fronds. Abstracts of Botany 2004, the Botanical Society of America 99th Annual Meeting, Snowbird, UT Abstract No. 355, p. 92. (Tomescu, A.M.F., G.W. Rothwell, and M.L. Trivett)

2004p Permineralized *Osmunda* pinnae with attached sporangia containing spores from the Lower Cretaceous of British Columbia, Canada. Abstracts of Botany 2004, the Botanical Society of America 99th Annual Meeting, Snowbird, UT Abstract No. 356, p. 92. (Varek, M.J. R.A. Stockey, and G.W. Rothwell)

2004q Cladistic relationships of ancient voltzialeans: a paleontological perspective on the initial radiation of conifers. Abstracts of Botany 2004, the Botanical Society of America 99th Annual Meeting, Snowbird, UT Abstract No. 354, p. 139. (G.W. Rothwell and G. Mapes)

2004r Fossils, ferns, and patterns of phylogeny. Abstracts of Ferns for the 21st Century, an international symposium on pteridophytes. Royal Botanic Garden Edinburgh, Scotland, UK., Symposium 4: Fossils, p. 24.

2004s Upper Pennsylvanian conifer diversity from the Hamilton Quarry locality, Kansas, USA. Abstracts of the VII International Organization of Paleobotany Conference, Bariloche, Patagonia Argentina, p. 55. (G.R. Hernandez-Castillo, R.A. Stockey, G.W. Rothwell and G. Mapes)

2004t Early evolution of terrestrial biotas, an overview. Abstracts of the VII International Organization of Paleobotany Conference, Bariloche, Patagonia Argentina, p. 97. (G.W. Rothwell and A.M.F. Tomescu)

2004u First steps on land; Organismal evolution in early Terrestrial biotas. Abstracts of the VII International Organization of Paleobotany Conference, Bariloche, Patagonia Argentina, p. 125-127. (A.M.F. Tomescu and G.W. Rothwell)

2004v First steps on land - organismal evolution in early terrestrial biotas. Abstracts of the VII International Organization of Paleobotany Conference, Bariloche, Patagonia Argentina, p. 55. (G.R. Hernandez-Castillo, R.A. Stockey, G.W. Rothwell and G. Mapes)

2003a Structure and biological affinities of Lower Carboniferous (Late Tournaisian) fructifications from Oxroad Bay, East Lothian, Scotland. Abstracts of the 20th Annual Mid-Continent Paleobotanical Colloquium, 2003. Field Museum, Chicago, Il., Abstract No. 10, p. 6. (Gruber, B., and G. Rothwell)

2003b Upper Carboniferous and Permian walchian conifers from Europe. Abstracts of the 20th Annual Mid-Continent Paleobotanical Colloquium, 2003. Field Museum, Chicago, Il., Abstract No. 13, p. 8. (Hernandez-Castillo, G. R., R. A. Stockey, and G. W. Rothwell)

2003c The Passage Creek biota (Virginia): a window on Early Silurian terrestrial communities. Abstracts of the 20th Annual Mid-Continent Paleobotanical Colloquium, 2003. Field Museum, Chicago, Il., Abstract No. 26, p. 16. (Tomescu, A. M. F. and G. W. Rothwell)

2003d The Early Silurian Massanutten Sandstone of Virginia: an updated perspective on early terrestrial biotas. Abstracts of Botany 2003, the Botanical Society of America 98th Annual Meeting, Mobile, AL. Abstract No. 238, p. 64. (Tomescu, A. M. F. and G. W. Rothwell)

2003e August. Anatomy of the cheirolepidiaceous pollen cone *Classostrobus*, a new species from the Jurassic of England. Abstracts of Botany 2003, the Botanical Society of America 98th Annual Meeting, Mobile, AL. Abstract No. 228, p. 61. (Mapes, G., G. W. Rothwell, and J. Hilton)

2003f August. Architecture, stature, and life cycle of primitive conifers from Euramerica. Abstracts of Botany 2003, the Botanical Society of America 98th Annual Meeting, Mobile, AL. Abstract No. 220, p. 59. (Hernandez-Castillo, G. R., R. A. Stockey, and G. W. Rothwell)

2003g Anatomically preserved vascular and nonvascular cryptogams from the Lower Cretaceous of western North America. Abstracts of Botany 2003, the Botanical Society of America 98th Annual Meeting, Mobile, AL. Abstract No. 232, p. 62. (Rothwell, G. W. and R. A. Stockey)

2003h Anatomically preserved tree fern sori from the Lower Cretaceous of Vancouver Island. Abstracts of Botany 2003, the Botanical Society of America 98th Annual Meeting, Mobile, AL. Abstract No. 234, p. 63. (Smith S. Y., G. W. Rothwell, and R. A. Stockey)

2003i Cretaceous tree fern radiations: new permineralized Dicksoniaceae. Abstracts of Botany 2003, the Botanical Society of America 98th Annual Meeting, Mobile, AL. Abstract No. 237, p. 63. (Stockey, R. A. and G. W. Rothwell)

2003j October. Earliest communities of complex terrestrial organisms: structurally simple and systematically diverse. Geological Society of America Annual Meeting, Seattle, WA, p. 458. (Tomescu, A. M. F., G. W. Rothwell, and G. C. Nadon)

2002a Rothwell, G. W. Paleontology and plant evolution. Botany 2002 Program, Madison, WI. p. 2.

2002b Rothwell, G. W. Paleontological evidence for the evolution of conifer reproduction. Botany 2002 Program, Madison, WI. p. 6.

2002c Dunn, M. T., G. W. Rothwell and G. Mapes. A permineralized lyginopterid seed fern from the Fayetteville Formation (middle Chesterian/upper Missippian) of Arkansas. Botany 2002 Program, Madison, WI. p. 56.

2002d Mapes, G. and G. W. Rothwell. A distinctive long needled walchian conifer from the uppermost Pennsylvanian Hamilton Quarry, Kansas. Botany 2002 Program, Madison, WI. p. 60.

2002e Tomescu, A. M. F. and G. W. Rothwell. Evidence for a terrestrial biota in Lower Silurian (Llaandoverian) carbonate shoreline deposits of Ohio. Botany 2002 Program, Madison, WI. p. 63.

2002f Trivett, M. L., G. W. Rothwell and R. A. Stockey. A permineralized schizaeaceous fern from the Late Eocene of Vancouver Island, British Columbia, Canada. Botany 2002 Program, Madison, WI. p. 63.

2002g Ballard, H. E., G. W. Rothwell and R. A. Stockey. Reassessing relationships among aroids and duckweeds. Botany 2002 Program, Madison, WI. p. 113.

2002h Hernandez-Castillo, G. R., G. W. Rothwell, R. A. Stockey and G. Mapes. *Thucydia mahoningensis* as a model for growth architecture in primitive walchain conifers. 6th European Paleobotany-Palynology Conference, Program Book of Abstracts, p. 94, University of Athens, Athens, Greece.

2002i Rothwell, G. W. and R. A. Stockey. Reproductive biology of Late Cretaceous Bennettitales; new species of anatomically preserved seed cones assignable to *Cycadeoidea* and *Williamsonia*. 6th European Paleobotany-Palynology Conference, Program Book of Abstracts, pp. 152-153, University of Athens, Athens, Greece.

2002j Stockey, R. A., G. W. Rothwell and D. W. Stevenson. Anatomically preserved cycad seeds from the Jurassic of the Queen Charloeet Islands, British Columbia, Canada. 6th European Paleobotany -Palynology Conference, Program Book of Abstracts, pp.164-165, University of Athens, Athens, Greece.

2002k Tomescu, A. M. F. and G. W. Rothwell. Meso- and microfossils of putative terrestrial organisms of the early Silurian (L:landoverian) carbonate shorelines in Ohio, USA. 6th European Paleobotany- Palynology Conference, Program Book of Abstracts, pp. 174-175, University of Athens, Athens, Greece.

2002l Mapes, G. and G. W. Rothwell. Floristic provincialism in ancestral Paleozoic conifers. Abstracts of the First International Paleontological Congress (IPC 2002), pp. 237-238. Brock, G. A. and J. A. Talent, eds., Sydney, Australia.

2002m Tomescu, A. M. F. and G. W. Rothwell. Evidence for pre-tracheophyte terrestrial communities from the early Silurian of Virginia. Geological Society of America Annual Meeting and Exposition- Abstracts with Programs. p. 210. Denver, CO.

2001a Rothwell, G. W. and R. A. Stockey. Anatomically preserved cycadeoid cones from the Cretaceous of Vancouver and Hornby Islands. Abstracts of the Fourth British Columbia Paleontological Symposium. p. 25, Thompson-Nicola Paleontology Society, Kamloops, British Columbia.

2001b Stockey, R. A.and G. W. Rothwell. Fossil seeds and pollination biology in Mesozoic plants from British Columbia. pp. 27-28. Abstracts of the Fourth British Columbia Paleontological Symposium. Thompson-Nicola Paleontology Society, Kamloops, British Columbia.

2001c Rothwell, G. W. and R. A. Stockey. Anatomically preserved cycadeoid cones from the Cretaceous of Vancouver and Hornby Islands. Abstracts of the Fourth British Columbia Paleontological Symposium. p. 25, Thompson-Nicola Paleontology Society, Kamloops, British Columbia.

2001d Stockey, R. A. and G. W. Rothwell. Fossil seeds and pollination biology in Mesozoic plants from British Columbia. pp. 27-28, Abstracts of the Fourth British Columbia Paleontological Symposium. Thompson-Nicola Paleontology Society, Kamloops, British Columbia.

2001e Rothwell, G. W. and R. A. Stockey. Pollen Tubes, contractile tissue, and pollination biology in Cycadeoidales/Bennettitales. p. 25, Botany 2001, Abstracts, Botanical Society of America. Albuquerque, NM.

2001f Dunn, M. T., G. W. Rothwell and G. Mapes. Upper Missippian ovules with characteristics of two unique morphogenera: *Stephanospermum* and *Rhynchosperma*. p. 63, Botany 2001, Abstracts, Botanical Society of America. Albuquerque, NM.

2001g Hernandez-Castillo, G., G. W. Rothwell and G. Mapes. Evidence for compound pollen cones in Paleozoic conifers. p. 65, Botany 2001, Abstracts, Botanical Society of America. Albuquerque, NM.

2001h Rothwell, G. W. and R. A. Stockey. Systematic characters of ovulate *Cycadeoidea/Bennettites* cones from the Cretaceous of Vancouver Island, British Columbia, Canada. p. 69, Botany 2001, Abstracts, Botanical Society of America. Albuquerque, NM.

2001i Stockey, R. A. and G. W. Rothwell. An ovulate *Williamsonia* cone from the Upper Cretaceous of western North America. p. 70, Botany 2001, Abstracts, Botanical Society of America. Albuquerque, NM.

2001j Rothwell, G. W. Cenozoic ferns of North America: preservation, ecology and evolution. North American Paleontological Convention. Berkeley, CA.

2001k Tomescu, A. M. F. and G. W. Rothwell. Exploring the cladistic relationships of sphenopsids. p. 72, Botany 2001, Abstracts, Botanical Society of America. Albuquerque, NM.Botanical Society of America Meetings, Albuquerque, NM.

2000a Liu, Z., G. Mapes and G. W. Rothwell. Taxonomic diversity among Late Pennsylvanian conifers at Hamilton, Kansas. p. 71, Botany 2001, Abstracts, Botanical Society of America. Albuquerque, NM.Amererican Journal of Botany 87(6): 71.

2000b Mapes,G., G. W. Rothwell and Liu, Z. Coniferophytes, grade or clade? Confronting the Puzzle. Program of the sixth Conference of the International Organization of Palaeobotany (IOPC-VI), Addendum, Qinhauangdao of Hebei, China.

2000c Mapes, G., K. Sun, M. Krings, G. W. Rothwell and R. H. Mapes. The earliest occurrence of *Medullosa*. American Journal of Botany 87(6): 71-72.

2000d Ratzel, S. R., G. W. Rothwell, R. H. Mapes, G. Mapes and L. A. Doguzhaeva. *Pityostrobus* in the Lower Cretaceous of southwestern Russia. American Journal of Botany 87(6): 82.

2000e Sun, K., G. Mapes and G. W. Rothwell. Phytogeographic considerations of the Cathaysia Flora and the Euramerica Flora. Program of the sixth Conference of the International Organization of Palaeobotany (IOPC-VI). p. 121-123, Qinhauangdao of Hebei, China.

1999a Cretaceous and Tertiary aquatic plants from North America: variations on the theme. Abstracts, International Botanical Congress, St. Louis, MO, p. 186. (Johnson, K. R., R. A. Stockey, and G. W. Rothwell)

1999b The Permian coniferophytes *Buriadia* and *Birsinghia*. Abstracts, International Botanical Congress, St. Louis, MO, p. 708. (Chandra, S., K. Singh, G. Mapes and G. W. Rothwell)

1999c Ontogeny of fossil conifer seedlings. Abstracts, International Botanical Congress, St. Louis, MO, p. 342. (Falder, A. B., G. W. Rothwell and R. A. Stockey)

1999d Fossil *Metasequoia* species. Abstracts, International Botanical Congress, St. Louis, MO, p. 339. (Falder, A. B., R. A. Stockey and G. W. Rothwell)

1999e Phylogeny of green algae and land plants. Abstracts, International Botanical Congress, St. Louis, MO, p. 143. (Chapman R., M. Buchheim, C. Delwiche, M. Fawley, J. Huelsenbeck, K. Karol, P. Kenrick, L. Lewis. R. McCourt, G. W. Rothwell and F. Zechman)

1999f A walchian conifer plant. Abstracts, International Botanical Congress, St. Louis, MO, p. 716. (Hernandez-Castillo, G., G. W. Rothwell and G. Mapes)

1999g Seed plant phylogeny. Abstracts, International Botanical Congress, St. Louis, MO, p. 144.

1999h Deconstructing *Buriadia*, a Permian coniferophyte form genus. (Chandra, S., K. J. Singh, G. Mapes and G. W. Rothwell). International Congress on the Carboniferous-Permian (XIV ICCP). Programme with Abstracts, p. 131.

1999 Reconstructing a walchian conifer from the Upper Carboniferous of North America. International Congress on the Carboniferous-Permian (XIV ICCP). Programme with Abstracts, p. 58. (Hernandez-Castillo, G., G. W. Rothwell and G. Mapes)

1999j Permineralized Permian conifers from South China. International Congress on the Carboniferous-Permian (XIV ICCP). Programme with Abstracts, p. 159. (Yao, Z., L. Liu, G. Mapes and G. W. Rothwell)

1999k Conifers in the fossil record. International Conifer Conference 1999; Wye College, Kent, England. Programme and Abstracts. p. 13.

1998a A Lower Cretaceous Tree Fern from the Budden Canyon Formation of Northern California. (Lantz, T., G. W. Rothwell and R. A. Stockey). XIV Mid-Continent Paleobotanical Coloquium, Program with Abstracts, pp. 10-11. Denver Museum of Natural History, Denver, CO.

1998b Fossilized Seedlings of *Metasequoia* from the Paleocene of Alberta. (Falder, A. B., R. A. Stockey and G. W. Rothwell). XIV Mid-Continent Paleobotanical Coloquium, Program with Abstracts, p. 7. Denver Museum of Natural History, Denver, CO.

1998d A permineralized tree fern from the Lower Cretaceous (Aptian) of northern California. (Lantz, T. C., G. W. Rothwell and R. A. Stockey). American Journal of Botany, 85 (Abstracts): 76.

1998e Germinating seeds and seedlings of a *Metasequoia*-like taxodiaceous conifer from the Paleocene of Alberta. (Falder, A. B., R. A. Stockey and G. W. Rothwell). American Journal of Botany, 85 (Abstracts): 73.

1998f A new conifer-like coniferophyte in the Upper Pennshlvanian of Kansas. (Mapes, G and G. W. Rothwell). American Journal of Botany, 85 (Abstracts): 78.

1998g Mycorrhizal associations of the Middle Eocene taxodiaceous conifer *Metasequoia milleri*. (Rothwell, G. W., H. D. Addy, R. A. Stockey and R. S. Currah). American Journal of Botany, 85 (Abstracts): 80.

1998h Techniques and advances in molecular paleobotany: Methods for evaluating hypotheses of plant evolution and phylogeny by molecular fossils. (Zinniker, D, J. M. Moldowan, J. Dahl, F. J. Fago, H. Li, L. J. Hickey, G. W. Rothwell and D. W. Taylor). American Journal of Botany, 85 (Abstracts): 83-84.

1998i The molecular fossil oleanane and preliminary data on its occurrence in gigantopterids, anthophytes and other seed plants. (D. W. Taylor, H. Li, J. Dahl, F. J. Fago, G. W. Rothwell and L. J. Hickey). American Journal of Botany, 85 (Abstracts): 84.

1997a *Pityostrobus* cone from Lower Cretaceous (Aptian) marine sediments in Russia. American Journal of Botany 84 (Abstracts): 133 (Falder, A. B., G. Mapes, G. W. Rothwell, R. Mapes and L. A. Doguzhaeva).

1997b *Aethophyllum stipulare*, an herbaceous Triassic conifer. American Journal of Botany 84 (Abstracts): 137 (Mapes, G., G. W. Rothwell and L. Gruvogel-Stamm).

1997c The importance of fossils in reconstructing fern phylogeny. American Journal of Botany 84 (Abstracts): 160.

1997d Developing new character concepts for resolving coniferophyte phylogeny. American Journal of Botany 84 (Abstracts): 227 (Rothwell, G. W. and G. Mapes).

1996a A preservational context for coniferophytes and other Upper Paleozoic permineralized plants in marine environments from North Central Texas. Sixth North American Paleontological Convention Abstrtacts of Papers, The Paleontological Society Special Pub. No. 8, p. 260 (Mapes, R. H., G. W. Rothwell, G. Mapes and G. M. Walters)

1996b Anatomically preserved Miocene ferns from the Yakima Canyon in central Washington State. Sixth North American Paleontological Convention Abstrtacts of Papers, The Paleontological Society Special Pub. No. 8, p.12 (Arnone, E. A., G. W. Rothwell and K. B. Pigg).

1996c Conifer-rich assemblages in Carboniferous dysoxic marine shales represent vegetation characteristic of Permian landscapes. The Fifth Conference of the International Organization of Paleobotany, Abstract Volume, Santa Barbara, California, p. 64 (Mapes, G., G. W. Rothwell and R. H. Mapes)

1996d Fossils, anatomy, and filicalean fern phylogeny: a review and overview. The Fifth Conference of the International Organization of Paleobotany, Abstract Volume, Santa Barbara, California, p. 86 (Rothwell, G. W. and R. Serbet)

1996e Miocene ferns from Central Washington State: anatomy and systematics. American Journal of Botany 83 (Abstracts): 131 (Rothwell, G. W., E. E. Arnone and K. B. Pigg)

1996f Origin and ontogeny of tissues in the ophioglossaceous fern *Botrychium*. American Journal of Botany 83 (Abstracts): 48 (Rothwell, G. W. and E. E. Karrfalt)

1996g Distribution of sporangial characters among polysporangiophyte (tracheophyte) land plants. American Journal of Botany 83 (Abstracts): 109 (Trivett, M. L. and G. W. Rothwell)

1996h Fossils and phenology: New evidence for interpreting the evolution of ginkgophytes. Centenary Commemorative Symposium for Discovery of Ginkgo sperms "Biology of Ginkgo biloba", Abstracts, Faculty of Science, University of Tokyo, p. 11, (Rothwell, G. W. and B. Holt)

1995a Phylogenetic radiations of ferns: A paleobotanical persective. Pteridophyte symposium '95, Pteridology in Perspective; Paper and poster abstracts. Royal Botanical Gardens, Kew, p. 23.

1995b (Holt, B. F. and G. W. Rothwell). Phenology and germination biology of *Ginkgo biloba*. American Journal of Botany 82 (6): 20.

1995c Fossils, ferns and fern phylogenetic relationships. American Journal of Botany 82 (6): 82.

1995d (LePage, B. A. R. S. Currah, R. A. Stockey and G. W. Rothwell). Earliest evidence for ectomycorrhizal symbiosis. American Journal of Botany 82 (6): 86.

1995e (G. W. Rothwell, G. Mapes and R. H. Mapes). Late Paleozoic conifers of North America. 1st Walter A. Bell Memorial Symposium, Program with Abstracts, University College of Cape Breton, Nova Scotia, Canada, p.36.

1995f (Mapes, R. H., G. Mapes and G. W. Rothwell). Late Paleozoic Conifers in the Marine Envrionment. Oklahoma Geology Notes 55: 31.

1994a (Rothwell, G. W., G. Mapes amd R. H. Mapes). Late Paleozoic conifer taphonomy in esturarian carbonates. Geological Society of America Abstracts with Programs, North-Central Section , p. 58.

1994b (Mapes, G., R. H. Mapes and G W. Rothwell). Conifer taphonomy in Late Paleozoic clastic non-marine environments. Geological Society of America Abstracts with Programs, North-Central Section, p. 51.

1994c (Mapes, R. H., G. Mapes and G. W. Rothwell). Late Paleozoic conifers in the marine environment. Geological Society of America Abstracts with Programs, North-Central Section, p. 5.

1994d (Mapes, G, G. W. Rothwell and R. H. Mapes). Intriguing ovulate fructifications from Upper Pennsylvanian dysoxic marine shale (Finis Shale) in midcontinent North America. American Journal of Botany 81(6): 97.

1994e (Rice, J., G. Mapes and G. W. Rothwell). A Late Pennsylvanian (Virgilian) fructification with one functional megaspore per sporangium from marine shales in midcontinent North America. American Journal of Botany 81(6): 101.

1994f (Rothwell, G. W., R. A. Stockey and H. Nishida). Filicaleans of the Middle Eocene Princeton chert: I. A dryopteroid species. Amererican Journal of Botany 81(6): 101-102.

1993a (Serbet, R., and G. W. Rothwell). Pollination biology of medullosan seed ferns: a new species of *Stephanospermum* from the Late Pennsylvanian of Ohio. American Journal of Botany 80 (6): 93.

1993b (Rothwell, G. W., and R. A. Stockey). Heterosporous aquatic ferns in the Upper Cretaceous of western North America. American Journal of Botany 80 (6): 112.

1993c (Rothwell, G. W., and R. Serbet). The evolution of spermatophytes, a numerical cladistic analysis. American Journal of Botany 80 (6): 174.

1993d Phylogenetic relationships among ferns and Gymnosperms. Evolution of pteridophytes and Gymnosperms: Symposium S.1.7.1. Integrating fossil evidence. XV International Botanical Congress, Yokohama, Japan, Program of Abstracts, 1 p.

1993e Review of: Mattheck, C. 1991. Trees, the mechanical design. Springer-Verlag, Berlin, 121 pp., Plant Science Bulletin, in press.

1992a The evolution of vascular architecture. Katherine Esau International Symposium, Abstracts, Davis, 3 pp.

1992b (Rothwell, G. W., and R. A. Scott). Confronting the *Buteoxylon/Triradioxylon/Tristichia/Calathopteris/Oxroadopteris* exasperplexium. American Journal of Botany 79 (6): 104.

1992c Fossil history of branching patterns in vascular plants. Experimental and molecular approaches to plant biosystematics. V International Symposium of the International Organization of Plant Biosystematists, program of Abstracts, St. Louis, MO, 1 p.

1992d (Mapes, G., G. W. Rothwell and J. Cook). Lyginopterid seed ferns in basal Upper Carboniferous marine Black Shale deposits of midcontinent North America. Fifth North American Paleontological Convention, Abstracts and Program, The Paleontological Society Special Publication No. 6, p. 195.

1991a (Good, C. W., and G. W. Rothwell). A new genus of the Psalixochlaenaceae (Filicales) with *Botryopteris* vascular anatomy. American Journal of Botany 78 (6): 114.

1991b (Serbert, R., and G. W. Rothwell). Evidence for the most ancient seed plants. Canadian Botanical Association and the Canadian Society of Plant Physiology, Edmonton. (Abstracts) p. 39.

1991c Evolutionary radiations of filicalean ferns, a paleobotanical perspective. Program with abstracts for the joint meeting of the Canadian Botanical Association and the Canadian Society of Plant Physiology, Edmonton: 41.

1991d Systematic relationships of seed plants. Are they part of a currently unnamed clade? American Journal of Botany 78 (6): 318.

1990a (Rothwell, G. W., and R. Serbet). Pollination biology of the most primitive gymnosperms. Abstracts of the 3rd International Senckenberg Conference, Frankfurt, p. 20.

1990b (Rothwell, G. W., and J. S. Pryor). Developmental dynamics of fossil lycophytes: Apical and lateral growth of *Stigmaria ficoides*. American Journal of Botany 77 (6): 22.

1990c (Serbet, R., and G. W. Rothwell). Hydrasperman reproduction in the evolution of ancient gymnosperms. American Journal of Botany 77 (6): 93.

1990d (Rothwell, G. W., and R. A. Stockey). Fossilized *Onoclea sensibilis* in the basal Tertiary of North America. American Journal of Botany 77 (6): 106.

1989a (Rothwell, G. W., and G. Mapes). Evolutionary radiation among primitive conifers. American Journal of Botany (Abstracts) 76 (6): 222-223.

1989b The Lycopsida: An incidence of insouciant evolutionary innovation. American Journal of Botany (Abstracts) 76 (6): 199.

1989c *Botryopteris forensis*, an epiphyte on *Psaronius*. American Journal of Botany (Abstracts) 76 (6): 206-207.

1989d (Rothwell, G. W., and R. A. Stockey). Fern Evolution in western Canada. Abstracts, Paleobotany in Canada; status and prospects, Canadian Museum of Nature, Ottawa. p. 18.

1988a (Mapes, G., and G. W. Rothwell). Diversity and reproduction of the Hamilton conifers. Abstracts, South-Central Section, G.S.A. 20: 124.

1988b (Rothwell, G. W., and G. Mapes). Biology of the Hamilton flora. Abstracts, South-Central Section, G.S.A. 20: 127.

1988c (Rothwell, G. W., and G. Mapes). Vegetation of Upper Paleozoic conifer communities. Abstracts, North-Central Section, G.S.A. 20: 386.

1988d (Mapes, G., and G. W. Rothwell). Well developed embryos within Paleozoic conifer seeds: Evidence for the origin of seed dormancy. American Journal of Botany 75: 112.

1988e (Rothwell, G. W., and D. C. Wight). Lower Carboniferous ovulate branching systems from Oxroad Bay, Scotland; a new species of Stamnostoma. American Journal of Botany 75: 115-116.

1988f (Scheckler, S. E., and G. W. Rothwell). Homology of the gymnosperm nucellus with the progymnosperm sporangium. American Journal of Botany 75: 116.

1988g (Rothwell, G. W., and R. A. Stockey). Epiphytes in the evolution of Paleozoic filicalean ferns. Abstracts, 3rd International Organization of Paleobotanists Conference, Melbourne, Pub. #1, p. 23.

1987a Biology of early gymnosperm reproduction: An overview. In: Systematics, evolution and ecology of early land plants symposium. Abstracts, XIV International Botanical Congress, Berlin (West), 283.

1987b (G. W. Rothwell, and R. A. Stockey). Ophioglossales in the early Tertiary of North America. American Journal of Botany 74: 687-688.

1987c (Feng, B., and G. W. Rothwell). Microsporangiate cones of *Mazocarpon bensonii*. American Journal of Botany 74: 682-683.

1987d (Rothwell, G. W., and D. C. Wight). Taxonomic diversity among Devonian and Lower Carboniferous fructifications with *Hydrasperma tenuis*-type ovules. American Journal of Botany 74: 288.

1986a (Millay, M. A., and G. W. Rothwell). Reconstructing zygopterid ferns. The *Biscalitheca* plant. American Journal of Botany 73 (Abstracts): 704.

1986b (Rothwell, G. W., and D. M. Erwin). Characterizing the most ancient gymnosperms. American Journal of Botany 73 (Abstracts): 710.

1986c (Wight, D. C., G. W. Rothwell, and A. C. Scott). Structural variation among gymnosperms with triradiate steles from Oxroad Bay, Southern Scotland. American Journal of Botany 73 (Abstracts): 714-715.

1986d Morphology and reproductive biology in the origin of cordaites and conifers. Resumes des communications, L'evolution des gymnosperms. Capproache biologique et paleobiologique. Colloque organise par la Foundation Louis EmbergerCCharles Sauvage, sous l'egide de la Societe Botanique de France, pp. 43-44.

1986e Interpreting the evolutionary role of heterochrony from the fossil record of vascular plants. Abstracts with Programs, 99th Annual Meeting and Exposition, Geological Society of America 18: 734.

1985a Classifying the earliest gymnosperms. Abstracts of Systematic and taxonomic approaches in Paleobotany. Systematics Association, and Linnean Society, London, Symposium. Goldsmith's College, University of London, March, p. 14.

1985b (Rothwell, G. W., and A. C. Scott). Ecology of the Lower Carboniferous plant remains from Oxroad Bay, East Lothian, Scotland. American Journal of Botany 72 (Abstracts): 899.

1985c The role of heterochrony in vascular plant evolution. American Journal of Botany 72 (Abstracts): 887.

1984a (Erwin, D. M., and G. W. Rothwell). Growth of the rhizomorph of *Paurodendron*, and homologies among rooting organs of Lycopsida. American Journal of Botany 71 (Abstracts): 112-113.

1984b The apex of *Stigmaria*: Structure and growth. American Journal of Botany 71 (Abstracts): 117.

1984c Apical structure and growth in *Stigmaria*; rhizomorphic rooting organ of Lepidodendrales. Abstracts, 2nd I.O.P.C., Edmonton, Canada, p. 36.

1983a (Pigg, K. B., and G. W. Rothwell). Development and surface configurations of the Paleozoic isoetalean *Chaloneria*. American Journal of Botany 70 (Program Abstracts): 76.

1983b An indusiate filicalean fern with gradate soral development from the Upper Pennsylvanian of the Appalachian Basin. American Journal of Botany 70 (Program Abstracts): 77.

1983c Functional morphology in ovule development and the evolution of gymnospermous reproduction. American Journal of Botany 70 (Program Abstracts): 77.

1982a (Taylor, T. N., and G. W. Rothwell). Studies of seed fern pollen: Development of the exine in *Monoletes* (Medullosales). Ohio Journal of Science 82 (Program Abstracts): 15.

1982b (Mickle, J. E., and G. W. Rothwell). Vegetative and fertile structures of *Cyathotheca* Taylor from the Upper Pennsylvanian of the Appalachian Basin. Ohio Journal of Science 82 (Program Abstracts): 15.

1982c Rothwell, G. W., E. E. Karrfalt, and J. R. Jennings). Structure and development of lobed lycopsid rooting systems. Journal of Paleontology (Supplement to No. 2, North American Paleontological Convention III, Abstracts of Papers) 56: 23.

1982d (Mickle, J. E., and G. W. Rothwell). Anatomy and morphology of *Cyathotheca* Taylor from the Upper Pennsylvanian of the Appalachian Basin. Botanical Society of America, Miscellaneous Serial Publication 162: 61.

1982e (Millay, M. A., and G. W. Rothwell). *Biscalitheca* (Zygopteridales) sporangia borne on repeatedly branched soral stalks for the Upper Pennsylvanian of Ohio. Botanical Society of America, Miscellaneous Serial Publication 162: 61-62.

1982f (Rothwell, G. W., and S. Warner). A shrubby cordaitean from the Upper Pennsylvanian of the Appalachian Basin. Botanical Society of America, Miscellaneous Serial Publication 162: 63.

1981a (Mickle, J. E., and G. W. Rothwell). Structure and relationships of simple, permineralized medullosan pollen organs. Ohio Journal of Science (Program Abstracts) 81: 28.

1981b (Pigg, K. B., and G. W. Rothwell). Megagametophytes of an Upper Pennsylvanian woody lycopsid. Ohio Journal of Science, 81 (Program Abstracts): 29.

1981c (Good, C. W., G. W. Rothwell, and T. N. Taylor). The occurrence of *Stephanospermum* (Pteridospermophyta) in the Lower Pennsylvanian of North America. Ohio Journal of Science 81 (Program Abstracts): 30.

1981d (Mickle, J. E., and G. W. Rothwell). Structure and relationships of a simple, permineralized pollen organ of the Carboniferous medullosan Pteridosperms. Botanical Society of America, Miscellaneous Serial Publication 160: 46.

1981e (Scheckler, S. E., G. W. Rothwell, and W. H. Gillespie). The oldest seed plants from the Late Devonian of West Virginia. Botanical Society of America, Miscellaneous Serial Publication 160: 47.

1981f New Interpretations of the Earliest Conifers. XIII International Botanical Congress (Sydney, Australia), Abstracts: 189.

1981g (Rothwell, G. W., S. E. Scheckler, and W. H. Gillespie). The earliest evidence for seed plants. XIII International Botanical Congress (Sydney, Australia), Abstracts: 190.

1981h (Karrfalt, E. E., J. R. Jennings, and G. W. Rothwell). Further observations on the structure and development of the lycopod root-bearing organ, *Protostigmaria*. XIII International Botanical Congress (Sydney, Australia); 208.

1980a (Pigg, K. B., and G. W. Rothwell). Vegetative and fertile shoots of an Upper Pennsylvanian woody lycopsid. Ohio Journal of Science 80 (April program abstracts): 17.

1980b Coniferophytes and cycadophytes; gymnosperm phylogeny or fantasy? 158: 97.

1980c Permineralized parts of putative primitive gymnosperms. Botanical Society of America, Miscellaneous Serial Publication 158: 98.

1980d Vascular architecture and cordaitean diversity. Botanical Society of America, Miscellaneous Serial Publication 158: 98.

1979a (Rothwell, G. W., and, J. E. Mickle). Morphology and anatomy of *Alethopteris* pinnules from the Upper Pennsylvanian of Ohio. Ohio Journal of Science 79 (Program Abstracts): 17.

1979b (Rothwell, G. W., and D. A. Eggert). Morphology and origin of complex permineralized pollen organs of Carboniferous medullosan pteridosperms. Ninth International Congress of Carboniferous Stratigraphy and Geology, Urbana, IL, Abstracts of Papers 60-61.

1979c (Rothwell, G. W., D. A. Eggert, W. N. Stewart, and C. G. K. Ramanujam). Structure and relationships of campanulate medullosan pollen organs. Botanical Society of America, Miscellaneous Serial Publication 157: 32.

1979d (Rothwell, G. W., J. R. Jennings, and E. E. Karrfalt). Structure and relationships of *Protostigmaria*. Botanical Society of America, Miscellaneous Serial Publication 157: 33.

1979e Vascular architecture in Permian species of *Medullosa*. Botanical Society of America, Miscellaneous Serial Publication 157: 36.

1978a Characterizing the fossil true-ferns from the Paleozoic of North America. Ohio Journal of Science 78 (April Program and Abstracts Supplement): 23.

1978b Filicalean ferns in the Upper Pennsylvanian of Ohio. Botanical Society of America, Miscellaneous Serial Publication 156: 53.

1977 The taxonomy of *Conostoma leptospermum* and *C. platyspermum*. Botanical Society of America, Miscellaneous Serial Publication 154: 42.

1976a The vascular architecture of *Cordaianthus concinnus* Delevoryas. Botanical Society of America Abstracts. Allen Press, Lawrence, KS pp. 30-31.

1976b (Rothwell, G. W., and A. H. Blickle). Species determination in psaroniaceous axes. Botanical Society of America Abstracts. Allen Press, Lawrence, KS p. 31.

1976c Nodal anatomy and seed plant systematics: A review and reevaluation. Botanical Society of America Abstracts. Allen Press, Lawrence, KS p. 60.

1975a (Rothwell, G. W., and J. F. Basinger). Petrified plants from the Eocene of British Columbia. Botanical Society of America Abstracts. Allen Press, Lawrence, KS p. 17.

1975b Structurally preserved microsporangiate conifer cones from the Eocene of British Columbia. Botanical Society of America Abstracts. Allen Press, Lawrence, KS p. 24.

1975c A pteropsid fructification from the Middle Pennsylvanian of Kansas. Botanical Society of America Abstracts. Allen Press, Lawrence, KS p. 24.

1974a Primary vasculature and gymnosperm systematics. Patterns of gymnosperm evolution (Symposium). American Journal of Botany 61 (#5 supplement): 23.

 1974b (Rothwell, G. W., W. N. Stewart, and J. F. Basinger). *Medullosa* is not a polystelic seed fern. American Journal of Botany 61 (#5 supplement): 18.

1973a Developmental features as criteria for taxonomic delimitation. American Journal of Botany 60 (#4 supplement): 19.

1973b (Taylor, T. N., G. W. Rothwell, and C. W. Good). Studies of Carboniferous and extant elater bearing spores. Abstracts, American Association Strat. Palynology p. 21.

1972a Structure and affinities of the Paleozoic pollen organ, *Idanothekion*. American Journal of Botany 59: 662.

1972b Studies of *Callistophyton*-like Paleozoic pteridosperms. American Journal of Botany 59: 662-663.

1972c (Rothwell, G. W., and K. L. Whiteside). 1972. The structure of medullosan rooting systems. American Journal of Botany 59: 663.

1971a Carboniferous ovule ontogeny. American Journal of Botany 58: 472.

1971b (Rothwell, G. W., and T. N. Taylor). Additional observations on the pteridosperm *Schopfiastrum*. American Journal of Botany 58: 472.

1970a (Rothwell, G. W., and D. A. Eggert). A *Conostoma* with a tentacular integument from the Pennsylvanian of Illinois. American Journal of Botany 57: 758.

1970b (Rothwell, G. W., and T. N. Taylor). Structurally preserved calamite fructifications. American Journal of Botany 57: 756.

1969 Additional Observations on *Conostoma* *anglo-germanicum* and *C. oblongum* from the Lower Pennsylvanian of North America. XI International Botanical Congress, Abstracts. Seattle, WA p. 143.

**Symposia and Invited Lectures**

2018 February. Tall tales about horsetails. Department of Botany and Plant Pathology, Oregon State University.

2018. June. 80 years of Paleobotany at Ohio University. 35th Midcontinent Paleobotanical Colloquium, Ohio Universisty.

2016 May. A Tribute to Tom Taylor. Midcontinent Paleobotanical Colloquium. Cornell University. <https://www.youtube.com/watch?v=wFOrQZmrjvA>.

2016 August. Horestails through form, space and Time; introduction and overview. Botany 2016, Savannah, GA. <http://www.botanyconference.org/engine/search/index.php?func=detail&aid=1005>

2016 October. Do fossils have a role in phylogenetic reconstruction? If so, what? Annual Meeting of the Willi Hennig Society, Buenos Aires, Argentina.

2013 July. [Calibrating the ages of conifer clades](http://www.botanyconference.org/engine/search/index.php?func=detail&aid=364). In The Critical Role of Plant Fossils in Divergence Dating Studies.105th meeting of the Botanical Society of America, New Orleans, Lousiana. (Escapa, I., Rothwell, G.W. and Cuneo, N.)

2012 January. Climbing the Tree of Death to view the Tree of Life. Humboldt State University, Arcada, CA.

2012 April. A paleobotanical perspective on conifer phylogeny. Oregon State University, Corvallis, OR.

2012 May. The role of development in plant evolution; a paleobotanical perspective. University of California, Davis, Davis, CA.

2012 July. Descent with Modification; uniting paleontology and molecular genetics to integrate pattern and process in plant evolution. First American Journal of Botany Special Lecture. Botany 2012, 104th meeting of the Botanical Society of America, Columbus, Ohio.

2012 November. Extending the C/S technique for differentiating paleoenvironments using a statistical approach. In Terrestrial proxies of paleoclimate and paleoenvironment in deep time. Geological Society of America Annual Meeting in Charlotte, North Carolina. (Nadon, G.C., Tomescu, A.M.F., Prat, L.M. and Rothwell, G.W.)

2011 March. Paleo-evo/devo: The evolution of polar auxin regulation in vascular plants. Evolution of plant patterns symposium. Jackson Hole, Wyoming.

2011 July. Introduction to Innovations in organismal botany – a tribute to the pioneering studies of Donald A. Eggert. Botany 2011, 103rd meeting of the Botanical Society of America. St. Louis, MO. (Taylor, T.N. and G.W. Rothwell)

2011 July. Rooting the Paleozoic’s largest trees; morphology, development, and homologies of *Stigmaria*. In Innovations in organismal botany – a tribute to the pioneering studies of Donald A. Eggert. Botany 2011, 103rd meeting of the Botanical Society of America. St. Louis, MO.

2011 August. Oregon’s first tropical forests. “Fossil fest”. North American Research Group, Beaverton, Oregon.

2011 August. Introduction and overview of conifer phylogeny. In Molecules and fossils, developing concordance of results for the systematics and phylogeny of Conifers. International Botanical Congress, Melbourne, Australia. (Rothwell, G.W., Campbell, C, Escapa, I, Gernandt, D. Holman, G. Kelch, D., Little, D. Mapes, G. Mathews, S and Stockey, R.)

2011 August. Simultaneous analysis of molecules and morphology and the relationship of fossil ovulate cones to living generaz of Pinaceae. In Molecules and fossils, developing concordance of results for the systematics and phylogeny of Conifers. International Botanical Congress, Melbourne, Australia. (Gernandt, D., Holman, G., Parks, M., Campbell, C., Crown, R., Liston, A., Rothwell, G. and Stockey, R.)

2010 May. Contrasting the trees of life and death in the resolution of embryophyte phylogeny. Keynote address at the Midcontinent Paleobotanical Colloquium, Frostberg State University, Frostberg, MD.

2010 June. From the dawn of time to the tree of death; Evolution of modern vegetation. Sigma Xi annual banquet speaker, Ohio University, Athens, OH.

2010 August. A slice of death; snippets of plant paleontology for the 21st century. Department of Botany and Plant Pathology, Oregon State University, Corvallis, OR (Co-presentation with R.A. Stockey)

2010 September. Paleobotany and Evolution. Science Café, Ohio University, Athens, OH.

2009 February. Paleobotany in the 21st century. Universidad del Mar, Puerto Escondido, Oaxaca, Mexico.

2009 February. Delving the dead for developmental patterns of plant evolution and phylogeny. University of British Columbia, Vancouver, BC , Canada.

2009 Anthophytes and seed ferns in the origin of flowering plants; contemporary approaches to the resolution of relationships. Botany and Mycology 2009, Botanical Society of America.

2008 March. Retrospective. Midcontinent Paleobotanical Colloquium. University of South Alabama, Mobile, Alabama.

2008 July. Utility of pollen characaters in gymnosperm systematics and Assembling the Tree of Life (AToL). Botany 2008. University of British Columbia, Vancouver, BC , Candada. (Ickert-Bond, S., M Kurmann and G.W. Rothwell)

2008 July. Fossils as blank slates and blank checks. Botany 2008. University of British Columbia, Canada. (Rothwell, G.W. and K. Nixon).

2008 September. Structure and relationships of bennettitalean seeds and cones: Is it time to move beyond the anthophyte hypothesis? International Palynological Congress (IPC-XII)/8th International Organisation of Palaeobotany Conference. (IOPC-VIII), Bonn, Germany. (Rothwell, G.W., W.L. Crepet and R.A. Stockey).

2007 August. Stalking the first flowering plants: permineralized vegetation from the Valanginian/Hauterivian boundary on Vancouver Island, Canada. In Search of the Earliest Flowers: An International Symposium, Stockholm, Sweden (Stockey, R.A. and G.W. Rothwell).

2007 [Molecules to Morphology: Introduction](http://2007.botanyconference.org/engine/search/index.php?func=detail&aid=1808). Molecules to Morphology: Developing an Understanding of Plant Evolution Through Time. Plant Biology & Botany 2007, Chicago, IL. ([Rothwell, G.W.](http://2007.botanyconference.org/engine/search/index.php?func=contactbyemail&id=136) and S. [Wyatt](http://2007.botanyconference.org/engine/search/index.php?func=contactbyemail&id=2047).)

2007 [Molecules to morphology: summary and conclusions](http://2007.botanyconference.org/engine/search/index.php?func=detail&aid=1680). Molecules to Morphology: Developing an Understanding of Plant Evolution Through Time. Plant Biology & Botany 2007, Chicago, IL. ([Wyatt, S](http://2007.botanyconference.org/engine/search/index.php?func=contactbyemail&id=2047). and G.W.[Rothwell)](http://2007.botanyconference.org/engine/search/index.php?func=contactbyemail&id=136).

2006 August. Paleontology provides a context for the developmental mechanisms of evolution. Bringing together the living and the Dead: Integrating extant and fossil biodiversity in evolutionary studies.Botanical Society of America 100th Annual Meeting, Chico State University, Chico, CA.

2006. January. Vegetation of the Past; Raising the Dead to the Level of Science. Ohio's First, Ohio's Finest, Ohio's Future - Ohio University Distinguished Professor Lecture. Athens, OH.

2005 October. From Gordon to auxin: the role of *Buteoxylon* in seed plant evolution. New Discoveries in old collections. Linnean Society of London, London, UK.

2005 Do we need more characters or more taxa to resolve the overall pattern of plant phylogeny. Early evolution: Developmental biology, paleobotany and ecology symposium. XVII International Botanical Congress. Vienna, Austria.

2004 November. The Phylogeny of Ferns: A paleobotanical perspective. John Carroll University, Cleveland, OH.

2004 November. Tropical Forests of Ohio. Ohio University Foundation Trustees Dinner. Athens, OH.

2004 October. Fossils and morphological characters in the resolution of fern phylogeny. North Carolina State University, Raleigh, NC.

2004 July. Ferns for the 21st Century. Fossils, ferns, and patterns of phylogeny. Royal Botanic Garden Edinburgh, Scotland, UK.

2004 April. Morphology and fossils: essential tools or extinct approaches to the resolution of vascular plant phylogeny. The Dead Plant Society, Cornell University, Ithaca NY.

2004 April. Fern Phylogeny: mode and tempo, pattern and process. Evolution of Modern Ferns Symposium, Department of Biological Sciences, University of Alberta, Edmonton, AB, Canada.

2004 March. Early evolution of terrestrial biotas, an overview - International Organisation of Palaeobotany Conference VII, Bariloche, Argentina.

2003 October. Ferns; ancient plants in an identity crisis. Texas State University, San Marcos, TX.

2002 August. Paleontology and plant evolution. Botany 2002 Program, Madison, WI. p. 2.

2002 August. Paleontological evidence for the evolution of conifer reproduction. Botany 2002 Program, Madison, WI. p. 6.

2001 May. Fossil seeds and pollination biology in Mesozoic plants from British Columbia. Fourth British Columbia Paleontological Symposiuim, Kamloops, British Columbia, Canada. (Stockey, R. A. and G. W. Rothwell)

2001 May. Anatomically preserved cycadeoid cones from the Cretaceous of Vancouver and Hornby Islands. Fourth British Columbia Paleontological Symposiuim, Kamloops, British Columbia, Canada. (Rothwell, G. W. and R. A. Stockey)

2001 July. Cenozoic ferns of North America: preservation, ecology and evolution. North American Paleontological Convention. Berkeley, CA.

2001 August. Mississippian ovules with characteristics of two unique morphotaxa: S*tephanospermum* and *Rhynchnosperma*. Botanical Society of America Meetings, Albuquerque, NM. (Dunn, M. T., G. W. Rothwell and G. Mapes)

2001 August. Exploring the cladistic relationships of sphenopsids. Botanical Society of America Meetings, Albuquerque, NM. (Tomescu, A. M. F. and G. W. Rothwell)

2001 August. Evidence for compound pollen cones in Paleozoic conifers. Botanical Society of America Meetings, Albuquerque, NM. (Hernandez-Castillo, G., G. W. Rothwell, G. Mapes)

2001 August. An ovulate *Williamsonia* cone from the Upper Cretaceous of western North America. Botanical Society of America Meetings, Albuquerque, NM. (Stockey, R. A. and G. W. Rothwell)

2001 Autust. Permineralized cycad seeds from the Jurassic of British Columbia, Canada. Botanical Society of America Meetings, Albuquerque, NM. (Stockey, R. A. and G. W. Rothwell)

2001 August. Systematic characters of ovulate *Cycadeoidea/Bennettites* cones from the Cretaceous of Vancouver and Hornby Islands, British Columbia, Canada. Botanical Society of America Meetings, Albuquerque, NM. (Rothwell, G. W. and R. A. Stockey)

2001 August. Pollen tubes, contractile tissue, and pollination biology in Cycadeoidales/Bennettitales. Albuquerque, NM. (Rothwell, G. W. and R. A. Stockey)

2000 August. Taxonomic diversity among Late Pennsylvanian conifers at Hamilton, Kansas. Botanical Society of America Meetings, Portland, OR. (Liu, Z., G. Mapes and G. W. Rothwell)

2000 August. Coniferophytes, grade or clade? Confronting the Puzzle. International Organisation of Palaeobotany Conference (IOPC-VI). Qinhauangdao of Hebei, China. (Mapes, G., G. W. Rothwell and Z. Liu)

2000 August. The earliest occurrence of *Medullosa*. Botanical Society of America Meetings, Portland, OR. (Mapes, G., K. Sun, M. Krings, G. W. Rothwell and R. H. Mapes)

2000 August. *Pityostrobus* in the Lower Cretaceous of southwestern Russia. Botanical Society of America Meetings, Portland, OR. (Ratzel, S. R., G. W. Rothwell, R. H. Mapes, G. Mapes and L. A. Doguzhaeva)

2000 August. Phytogeographic considerations of the Cathaysia Flora and the Euramerica Flora. Program of the sixth Conference of the International Organisation of Palaeobotany Conference, (IOPC-VI), Qinhauangdao of Hebei, China. (Sun, K., G. Mapes and G. W. Rothwell)

1999 August. Conifers in the fossil record. International Conifer Conference. Wye College, Wye, Kent, England.

1999 August. Seed plant phylogeny. Green Plant Phylogeny Symposium, International Botanical Congress, St. Louis, MO.

1999 March. Sameness as a tool in plant phylogeny. Earth History and Paleobiology Seminar Series, Harvard University, Cambridge, MA.

1998 November. Fern phylogeny using both living and fossil species. The University, Allahabad, India.

1998 November. Phylogenetic relationships among ferns and fern-like plants. Birbal Sahni Institute of Paleobotany, Lucknow, India.

1998 September. Mode and tempo of evolution in ferns. Miami University, Oxford, OH.

1998 May. Origin of clades and the conquest of land. University of California, Berkeley, CA.

1998 April. Tropical Vegetation of West Virginia. West Virginia State College, Institute, WV.

1997 October. Developing ontogenetic approaches in plant paleontology. Ontogeny and Paleontology Symposium. 57th Annual Meeting of the Society of Vertebrate Paleontology, Chicago, IL. (Trivett, M. L., G. W. Rothwell and R. A. Stockey)

1997 August. The importance of fossils in reconstructing fern phylogeny. Relationships and fossil history of ferns symposium. American Institute of Biological Sciences Meetings, Montreal, Canada.

1997 July. Land Plant phylogeny, homology, and the evolution of ferns. Fern Development and Evolution Symposium. Purdue University, West Lafayette, IN.

1996 September. Fossils and phenology: New evidence for interpreting the evolution of ginkgophytes. Centenary Commemorative Symposium for Discovery of Ginkgo sperms. University of Tokyo, Japan.

1996 August. Distribution of sporangial characters among polysporangiophyte (tracheophyte) land plants. Global Morphological Characters of Land Plants Symposium sponsored by the Botanical Society of America and International Association of Plant Taxonomists at the annual meeting of the American Association of Biological Sciences, Seattle, WA. (Trivett, M. L. and G. W. Rothwell)

1996 April. The role of fossils in deciding: What is a fern? University of Kansas.

1996 March. The evolution and phylogeny of ferns. Department of Biological Sciences, Ohio University.

1996 February. Morphology, paleontology, and fern phylogeny. Purdue University.

1995 August. Fossils, ferns and fern phylogenetic relationships. Fossils and Phylogeny Symposium sponsored by the Botanical Society of America at the annual meeting of the American Association of Biological Sciences, San Diego, CA.

1995 May. Late Paleozoic conifers of North America. Walter A. Bell Memorial Symposium on Paleobotany and Coal Science. Sydney, Nova Scotia, Canada. (Rothwell, G. W. and G. Mapes)

1995 April. Fern Phylogeny. Bailey Hortorium, Cornell University.

1994 November. Reconstructing Fossil Ferns to Reconstruct Fern Phylogeny. Uppsala, Sweden. (Rothwell, G. W. and R. A. Stockey)

1994 November. The Role of Conifers in Seed Plant PhylogenyCBuilding on the Contributions of Rudolph Florin. In: Seed Plant Origins and Systematics, Swedish Museum of Natural History, Stockholm.

1994 November. Seed plant systematics: Relationships of conifers to other seed plants. In: Seed Plant Origins and Systematics, Swedish Royal Academy, Stockholm, Sweden.

1994 April. Late Paleozoic conifer taphonomy in esturarian carbonates. Geological Society of America, North-Central Section, Kalamazoo, MI. (Rothwell, G. W., G. Mapes and R. H. Mapes)

1994 April. Pteridophytic evolution: A reproductive paradigm. In: Paleobiology of Fossil Plants: New Insight and Perspectives Symposium. VI Congreso Argentino de Paleontologia y Bioestratigrafia. Museo Paleontologico Egidio Feruglio, Trelew, Argentina.

1993 September. Phylogenetic relationships among ferns and Gymnosperms. Evolution of pteridophytes and Gymnosperms: Symposium S.1.7.1. Integrating fossil evidence. XV International Botanical Congress, Yokohama, Japan.

1993 March. The origin and evolution of conifers. Gimnospermas fòsiles, una perspectiva biologica. Las conferencencias serán ebn el auditoro nabor carrillo, a un costado del Centro de Informaciòn Cientifica y Humanistica, en Ciudad Universitaria, Mexico City.

1993 March. The evolution of seed plantsCa biological perspective. Gimnospermas fòsiles, una perspectiva biologica. Las conferencencias serán ebn el auditoro nabor carrillo, a un costado del Centro de Informaciòn Cientifica y Humanistica, en Ciudad Universitaria, Mexico City.

1992 June. Fossil History of Branching Patterns in Vascular Plants. V International Symposium of the International Organisation of Plant Biosystematists: Experimental and Molecular Approaches to Plant Biosystematics, St. Louis, MO.

1992 May. The Phylogenetic Radiations of Ferns: a Paleobotanical Perspective. Northeastern Fern Conference, Harvard Forest, Petersham, MA.

1992 April. The Evolution of Vascular Architecture. The Katherine Esau International Symposium on Plant Structure: Concepts, Connections and Challenges, Davis, CA.

1990 May. Pollination Biology of the Most Primitive Gymnosperms. 3rd International Senckenberg Conference, Frankfurt, Germany.

1989 September. Evolutionary radiations among filicalean ferns. Keynote Address, Southeastern Fern Conference, Boone, NC.

1989 September. The Evolution of Gymnospermous Biology, University of North Carolina at Chapel Hill, Chapel Hill, NC.

1989 August. The Lycopsida: An incidence of insouciant evolutionary innovation. In: The Lycopods Symposium, American Institute of Biological Sciences, Toronto, Ontario, Canada.

1989 August. Evolutionary radiations among primitive conifers. In: New Evidence for the Classification of Conifers Symposium, Botanical Society of America, Toronto, Ontario, Canada. (Rothwell, G. W. and G. Mapes).

1989 June. Early Evolution of Gymnospermous Biology. Natural History Museum, University of Tokyo, Tokyo, Japan.

1989 June. Evolution of the Ferns, Chiba University, Chiba City, Japan.

1989 January. Epiphytes, lianas and community physiognomy in the evolutionary radiation of filicalean ferns. University of Chicago, Chicago, IL.

1988 April. Origin of the Land Flora. In: Origins and Destruction: New Theories of Evolution. Adult Courses, Smithsonian Institution, Washington, D.C.

1987 August. Biology of Early Gymnosperm Reproduction: An Overview. In: Evolution of Early Seed Plants (Symposium), XIV International Botanical Congress, West Berlin.

1986 December. The evolution of gymnospermous biology. University of Alberta, Edmonton, Alberta, Canada.

1986 November. Interpreting the Evolutionary Role of Heterochrony from the Fossil Record of Vascular Plants. In: Ontogeny and Heterochrony in the Fossil Record (Symposium), Geological Society of America Meetings, San Antonio, TX.

1986 September. Morphology and Reproductive Biology in the Origin of Cordaites and Conifers. In: L'Evolution des Gymnospermes, Approche Biologique et Paleobiologique. Colloque orgainse par la Foundation Louis EmbergerCCharles Sauvage, sous l'egide de la Societe Botanique de France, Montpellier, France.

1986 April. The Role of Phenotype in Interpreting Evolution. Herman F. Becker Distinguished Lecture, Sigma Xi, Indiana University, Bloomington, IN.

1985 August. The Role of Heterochrony in the Evolution of Vascular Plants. In: Paleobotanical Perspectives on Vascular Plant Evolution (Symposium). Botanical Society of America Meetings, Gainesville, FL.

1984 December. Reconstructing plants of the past. Goldsmith's College, University of London, England.

1984 October. Characterizing fossil vegetation. Chelsea College, University of London, London, England.

1981 November. Functional Morphology and Reproductive Biology of the most Primitive Seeds. The Ohio State University, Columbus, OH.

1981 October. Evolution, and the Origin of the Seed Habit. Miami University, Oxford, OH.

1981 August. New Interpretations of the Earliest Conifers. In: Paleozoic and Mesozoic Gymnosperms (Symposium). XI International Botanical Congress. Sydney, Australia.

1979 August. The Callistophytales; Structure, Reproduction and Phylogeny. In: Current Concepts of Paleozoic Seed Ferns (Symposium). 30th Meeting of the A.I.B.S., Stillwater, OK.

1978 November. Reconstructing Plants of the Past--A Peek into the Coal-Age Forest. Oberlin College, Oberlin, OH.

1978 March. Primary Vasculature and Seed Plant Systematics. Gray Herbarium, Harvard University, Cambridge, MA.

1976 December. Interpreting Seed Plant Steles. Division of Biological Sciences, University of Michigan, Ann Arbor, MI.

1974 June. Primary Vasculature and Gymnosperm Systematics. In: Patterns of Gymnosperm Evolution (Symposium). 25th Meeting of the A.I.B.S., Tempe, AZ.

 **Grants Funded (Selected; total grants funded 44)**

2009 REU Supplement to: Resolving the Phylogeny of seed plants. Emerging Frontiers Division, Gymnosperms on the Tree of Life program, National Science Foundation (EF- 0724544). $7,500 (G. W. Rothwell and G. Mapes)

2008 REU Supplement to: Resolving the Phylogeny of seed plants. Emerging Frontiers Division, Gymnosperms on the Tree of Life program, National Science Foundation (EF- 0724544). $7,500 (G. W. Rothwell and G. Mapes).

2007 REU Supplement to: Resolving the Phylogeny of seed plants. Emerging Frontiers Division, Gymnosperms on the Tree of Life program, National Science Foundation (EF- 0724544). $6,500 (G. W. Rothwell and G. Mapes).

2007 GFP as a tool for multi-representational visual translation. Course, Curriculum, and Laboratory and Instructional Division, CCLI - Adaptation and Implementation Program, National Science Foundation (DUE 0633618). $140,215 (S. Wyatt, D. Moore, J. Duerr and G.W. Rothwell,Rothwell).

2006 AToL: Collaborative Research: Resolving the Phylogeny of seed plants. Emerging Frontiers Division, Gymnosperms on the Tree of Life program, National Science Foundation (EF-0629819), $2,999,983 (Ohio University budget. $301,519; G. W. Rothwell, G. Mapes and R. A. Stockey).

2003 Megafossil evidence for Ordovician-Silurian terrestrial biotas. Geology and Paleontology Program, National Science Foundation (EAR-0308931). $45,830.

2003 Dissertation research: The first complex terrestrial communities. Systematic Biology Program, National Science Foundation. (DEB-0308806). $11,600 (G. W. Rothwell and A. M. F. Tomescu).

2001 Systematic Analysis of Living and Fossil Duckweeds using a Combined Morphological/Molecular Approach. Ohio University Baker Award. $8,510.

1998 Paleontological Studies of Conifers: Evolution and Ecology. Ohio University Post-Doctoral Fellowship for 1999. $28,652 (G. W. Rothwell (PI), G. Mapes and R. H. Mapes).

1997 Phylogeny of coniferophytic seed plants (China Travel Supplement). International Studies Program, National Science Foundation (DEB 9527920). $10,500 (G. W. Rothwell and G. Mapes).

1996 Phylogeny of coniferophytinc seed plants. Systematic Biology Program, National Science Foundation. (DEB 9527920). $95,000 (G. W. Rothwell and G. Mapes).

1994 Establishing a Multipurpose Scientific Imaging Facility at Ohio University. Academic Research Infrastructure Program, National Science Foundation. (STI- 9413419). $100,000 (G. W. Rothwell, D. A. Gulino, M. E. Kordesch and J. Salick).

1994 Developing the Scientific Imaging Capabilities of Ohio University. The Ohio University Foundation, 1804 Fund. $65,000 (G. W. Rothwell, D. A. Gulino, M. E. Kordesch and J. Salick).

1994 Developing the Scientific Imaging Infrastructure at Ohio University, Ohio University College of Arts and Sciences. $40,000.

1994 Matching funds for establishing a multipurpose scientific imaging facility at Ohio University, Ohio Board of Regents Action Fund. $65,000.

1986 Evolutionary Relationships of Primitive Gymnosperms. National Science Foundation (BSR86-00660). $110,000 (G. W. Rothwell and D. C. Wight).

1983 Pennsylvanian Age Plants of Eastern North America. National Science Foundation (BSR83-10572). $140,000.

1981 Establishment of a Multipurpose Photomicroscopy Laboratory at Ohio University. National Science Foundation (DEB81-09682). $42,000.

1980 Matching Funds for Equipment for a Photomicroscopy Laboratory. Ohio University 1804 Fund. $35,000.

1980 Studies of Anatomically Preserved Plants from the Pennsylvanian of Eastern North America. National Science Foundation (DEB80-10793). $80,000.

1978 Vascular Architecture in Systematic Studies of Primitive Seed Plants. National Science Foundation (DEB77-25366). $37,000.